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MARYLAND FARMER:

MONTHLY MAGAZINE:

DEVOTED TO

Agriculture, Horticulture and Rural Economy.

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THE MARYLAND FARMER:

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No. 3

Feeding Value of the Corn Crop.

The following excellent article appears as a communication in the *New England Farmer* to which should be added, the value of the manure.

In comparing the weight of shelled corn to the weight of the stover on which it grows, as 60 to 90 but in comparing the value of the grain to that of the stalks, the ratio is nearly as 2 to 1. In other words, a bushel of corn weighing 60 pounds, represents a product of stover equal to 90 pounds, and when the grain is 80 cents per bushel, the stover producing it should be worth 40 cents.

Dr. Sturtevant, in his valuable paper on Chemical Corn-gaowing, gives the weight of the grain, as compared with that of the stalks, at one pound of the former or $1\frac{1}{2}$ lbs. of the latter.

According to Prof. Stockbridge, it requires 90 pounds of stalks to produce a bushel of corn, and his estimate of the relative values makes the grain worth 80 cents and the stover 36 cents.

In a crop reported by Joseph Harris, yielding 70 bushels of grain, and 3 tons of stover per acre, the money value was rated at \$42 for the grain, and \$30 for the stover.

Now, if the stalks of a corn crop are worth half as much as the grain, and if the latter is worth 80 cents per bushel of 60 pounds, then an acre of 70 bushels would show the following results:—

Weight of grain, 4,200 lbs.	value of grain, \$56 00
" stalks, 6,300 "	" stalks, 28 00
Total weight, - 10,500	Total value - - \$84 00

But there is another view of the subject. According to the above ratio of values, it becomes easy, and is often convenient, to estimate the total value of the crop in terms of the grain. Thus, when the yield of grain is 70 bushels per acre, the stover would be equivalent, in feeding value, to 35 bushels, and the value of the entire crop, if expressed in grain, would be 70 bushels plus 35 bushels.

Every yield of corn, therefore, that reaches 70 bushels per acre, is virtually equivalent to a yield

of 105 bushels; but if, to make the estimate more reliable, we count the stover equal to 30 bushels of grain, instead of 35 bushels, this will make the product of the acre equivalent, in round numbers, to 100 bushels of grain, which at 60 pounds to the bushel gives, 6000 lbs. per acre.

Assuming this as a standard crop, and fairly within reach of intelligent farmers, let us now see what *such an acre* is equivalent to, in each of the various forms of food into which corn enters as a factor

AMOUNT OF BEEF FROM ONE ACRE OF CORN.

In feeding for beef, the results obtained by practical men are found to vary widely, according to the method of feeding and other conditions; but a careful comparison of results seems to indicate that, on a general average and with a good breed of Cattle, 12 pounds of prime hay, or 6 to 8 pounds of grain will produce a pound of beef. According to Alderman Mechi it appears that "7 pounds of grain will produce a pound of meat, net butcher's weight." A less weight than this of corn meal has been known to produce, and under favorable conditions, will produce a pound of beef; but taking this figure as fairly within reach when right methods are used, and it shows that an acre of corn is capable of yielding 857 pounds of beef.

PORK FROM ONE ACRE.

According to Mr. Harris, 100 pounds of corn contain the necessary elements for 61 pounds of pork. This theoretical limit will probably never be reached in practice, though a fair approach to it seems to have been made when 22 pounds of pork were obtained from one bushel of corn, as reported by Jas. Buckingham, in the *Prarie Farmer*, and still later, when 24½ pounds were produced from a bushel, by John Howard, of Michigan. But exceptional results are not to be looked for in ordinary farming. If we assume four pounds of corn as attainable average for a pound of pork, we then have 1500 pounds of pork as the product of one acre of corn.

AN ACRE OF MUTTON.

When this grain is fed to sheep, if the feeding is well managed, the results are but little, if any, inferior to those obtained in making pork. It is in fact, claimed by some feeders that more mutton than pork can be obtained from a bushel of corn; but if we suppose the feeding value of this cereal to be the same in both cases, it shows that 1500 pounds of mutton are possible from one acre of ground planted in corn.

Of course no intelligent man will infer from these estimates that it is intended to recommend the exclusive use of corn in feeding. This would be simply absurd. A variety of food is always better than any single kind; yet it is expedient to ascertain, by separate trial, the actual feeding value not only of corn, but of other feeds also, in order to combine them with judgment, and with economical results. The man who finds he can get 500 pounds of beef from an acre of turnips, and 800 pounds from an acre of corn, does not, for that reason, abandon the use of turnips entirely, nor confine his feeding to corn exclusively, for he understands that the best results from each are obtained by judiciously using both.

BUTTER PRODUCT OF ONE ACRE.

The amount of corn required for a given quantity of butter has never been accurately determined. The question depends, in part, on the variety of corn, but still more on the breed of cow and skill of the feeder. It is held by some that the corn which gives a pound of beef should be sufficient for a pound of butter. But this opinion is not warranted by experience, and the presumption is clearly against it. The best result that can safely be assumed, until further experience sheds more light on the subject, is, that ten pounds of corn, will, under right conditions of feeding, produce one pound of butter, with a fair average cow. At this rate of production, an acre of corn represents 600 pounds of butter, in addition to the skimmed milk and surplus of the dairy.

CHEESE AND MILK FROM ONE ACRE.

According to the above result for butter, the product of cheese would be from 1300 to 1500 pounds, and the result in milk, on a general average, would be over 13,000 pounds from an acre of corn.

THE PRODUCT OF EGGS FROM CORN.

A hen of average quality, with fair treatment, will produce three eggs per week, or 156 eggs per year, and will consume in the meantime two bushels of corn, or its equivalent. This is equal to seventy-eight eggs, (weighing $9\frac{3}{4}$ pounds) for each

bushel of corn, making a total of 7800 eggs from the corn product of a single acre.

AMOUNT OF POULTRY REPRESENTED BY AN ACRE OF CORN.

It is the estimate of some farmers that the corn which produces a dozen eggs is equivalent, in the fattening of poultry, to a pound of flesh. Others have, on a comparative estimate of beef and poultry, found that the latter is produced from a less relative amount of grain, than the former, making six pounds fed to poultry equivalent to seven pounds fed to cattle. Assuming, then, in the absence of more accurate data, that six pounds of corn will produce a pound of poultry, we have 1000 pounds of the latter as the product of an acre of this grain.

CORN BREAD.

When good sound corn is properly prepared and made into bread by the latest and best methods, or into cakes, pudding and other similar preparations it produces a superior quality of food in a variety of forms adapted to universal consumption. The fact is also worthy of notice that the gain in weight of the bread thus prepared from corn meal, over and above the weight of the meal from which it is made is more than 100 per cent. In other words, a pound of corn bread is the product of less than half a pound of corn meal. Hence it appears that the value of an acre of this cereal, when measured by the bread it is capable of producing 12,000 pounds.

In all the estimates here presented the figures of course, are approximate only, and do not claim to be positive or exact. That they are possible in individual cases will not be denied. Whether they are possible, as *average* results, is another question, and one on which opinions may differ. Yet it is certain that the products here stated are all of them reached, and most of them surpassed every year, by enterprising farmers, as is clearly shown by the records of husbandry in every part of the country.

CONRAD WILSON.

New York City, Jan. 1877.

THE TREASURY now, November 20, holds \$337,840,800 in bonds to secure national bank circulation, and \$19,103,000 to secure public deposits. U. S. bonds deposited for circulation for week ending to-day \$521,400. U. S. bonds held for circulation withdrawn during the week ending to-day, \$76,400. National bank circulation outstanding--Currency notes, \$320,612,289; gold notes, \$2,099,196.

SALT IN AGRICULTURE.

The beneficial use of common salt (chloride of sodium) has long, though not generally, been known; the fact has frequently been noticed, heretofore in the MARYLAND FARMER, and is worthy of more attention than it has received.

Some years ago Mr R. W. Hughes, of Virginia, with considerable labor, prepared a pamphlet on on this subject, in which he collected numerous facts and experiments, from English cultivators of early and recent date, proving the efficacy in many ways of the use of salt in farming. He says:

"In the papers published at the begining of the present century, by Sir John Sinclair, England, is an extract from Lord Dundonald's Work, which says *salt*, sown broadcast, over the fields destroys the worms in the ground; and also has this advantage, that the vermin thus becomes food for the very plants which otherwise they would destroy."

"Old Gervase Markham, an early English writer, says, among the great devourers of grain are pismires, or ants, although it be a little creature, it is so laborious that the grain which they destroy amounteth to a great quantity; but if the land be manured with *salt* or *ashes*, it will not breed pismires."

Sir John Sinclair further says: "*salt*, if employed in very large quantities, in its natural state, is hostile to vegetation; but it operates advantageously, in many ways, when judiciously applied to the land; in moderate quantities it promotes growth of vegetation."

"An experiment was tried in Cheshire, England, of mixing roots and rubbish harrowed off the field with foul *salt*, and this mixed with other manures; the effects of this compost on crops of barley and grass greatly exceeded the most sanguine expectations."

"Another experiment was made of mixing ditch and furrow earth with refuse *salt*; the same farmer made another mixture of same kind of earth with *lime*; he applied these mixtures to different portions of the same field; that part on which the *salt* compost was laid, had by far the most vigorous and healthiest vegetation."

Mr. Hughes quotes the following interesting statement from an old English paper, of date 1764: "after draining a piece of some rushy ground, about the middle of October, refuse *salt* was spread upon a portion after the rate of 8 bushels the acre; and on another part, 16 bushels the acre. In a short time all vegetation disappeared totally; and during the April following not a blade of grass was to be seen; but in the latter end of May a most flourishing

crop of rich grass made its appearance on that part where 8 bushels of salt had been laid; and in July, the other portion produced a still stronger crop of grass; and cattle were very fond of it. During the whole ensuing winter, and to this day, now ten years since, the land retains and exhibits superior verdure to the neighboring closes."

Another English writer says: "Its effects on fallow-land are equally advantageous; by sowing it freely at the time of breaking-up the land for a fallow, its strong saline properties destroy noxious weeds and insects; but by being well mixed with the soil before the wheat is sown it adds a strong nutriment and ensures the best of crops."

Lord Erskine says: "*Lime*, which has caused to start into life the most inert and steril parts of Great Britain, is almost nothing as a manure when compared with *salt*; lime is powerful as according to the quantity which is used; whereas salt, to be useful, must be applied sparingly."

Mr. Thomas Bernard, writing about the same time, says: "Mr. Seckler, of Henver, has just applied *salt*, at the rate of 25 bushels the acre, to poor exhausted land, being clay, unfit for turnips; the effect was a heavy rich crop. The salt used is what is considered refuse, after having cured fish; over this earth is spread, and then the mass is sold to farmers by the fish curers." [It was 25 bushels to the acre, of this mixture that was used.]

"In a London paper, 1735, a writer remarks—I am assured, from a gentleman of Scotland, that, they have long used *salt* in that part of the country, sowing ten to twelve bushels of their coarse salt on the acre of young wheat, sometimes in November, December, January, and February; it being very effectual in killing *tender weeds* and insects, among the wheat, yet, at the same time, cherishing the grain; and though it does not add much to bulk of straw, yet, adds much to the goodness of grain. "Every acre of land in England which needs to be improved, may be done ten shillings an acre cheaper by salt, than in any other way."

Such are the testimonies, on this subject, from across the water, in early days. In our next issue of the MARYLAND FARMER we will give equally satisfactory evidence, of a recent date, and of experiments in our own country.

One day, last month, we had an interesting interview with Com. Ammen, of Prince George county, in which he mentioned his own very favorable results from the use of *salt* on land; among others he found it beneficial applied to the soil around young fruit trees, stirring it in the soil a foot from the trunk of the trees, so as not to allow it to come in contact with the bark of the tree.

We have the highest and pleasantest testimony that *salt* is the savor of the earth; and it *may* be the savor of the husbandman's labor, if seasonably and properly appropriated.

By numerous testimony in our possession it is shown to be equally beneficial on sandy as on clay and swamp lands,

Agricultural Calendar.**FARM WORK FOR MARCH.**

In our climate this month is usually a stirring time with agriculturists! Tis true, the weather is usually fitful and sometimes very severe; and suddenly, when old Boreas gets in his mad tantrums venting his spleen on old houses, trees and fences, and bringing relief by way of death to many a poor neglected old or young beast, like "hollow horned" cows and new-born lambs. But we commonly have some fine days in this month, when the earth is dry and in good order to be worked. Let us be prepared to take advantage of such favorable spells to plant potatoes, to sow tobacco beds, and all such farm work as will forward the operations for the year's crops, endeavoring to keep ahead of work.

PLOWING.

Press forward the spring plowing as often as the condition of the land will allow. Follow immediately the plow with the harrow.—Thomas' Smoothing Harrow is by far the best harrow for this work; also, break the clods and lumps with a roller.—There is great art in plowing. The furrows should be straight, well turned, of even width and depth—say 7 or 8 inches; if stiff soil with a hard pan under the turned soil, be sure and break it up by the sub-soil plow: if the sub-soil be poor, do not turn up more than a few inches, and the sub-soil plow will loosen the bottom of the furrow, for purposes of drainage aërication and filtration.—The furrows should not set up, nor lie flat, but lap over the next furrow; see that the turf is covered and that evenness of depth be strictly secured, and that all the land be cut by the share. It is too common a practice with lazy plowmen to let the plow slip over hard places, and run deep in soft ones; by which means those spots that require the deepest cultivation are only skimmed and their sterility increased, solely for the want of more exertion on the part of the plowman. The master's eye is no where more wanted than in the field that is being plowed. It is better to plow well half an acre than badly one acre. On the proper breaking up of the ground and its first stages of preparation

mainly depend the future success of the crop.

MANURES.

Haul out and spread all the manure it is possible to be had on the farm; but do not spread the manure too sparingly; better make one acre rich than make two acres only half rich. Purchase fertilizers freely, for all the ground you cultivate not manured with home-made manures—cultivate no more land than you can manure heavily, or fertilize with such fertilizers as are most suitable for the plants grown, and which will likely supply such ingredients of plant food as the soil is deficient in. To fully learn these things, rely upon your own experiments yearly made on different small spots and with different manufactured manures on a small scale, until you are satisfied with results; then "go ahead." To those who do not care to wait, we say, consult some chemists, let him analyze your soil, and tell you what the different fields want, and you will be well repaid for your money spent in getting the information. One thing we will say, you cannot well go amiss in using lime of some sort, bones, and such fertilizers as contain a large amount of ammonia and potash—the latter for tobacco especially. Of course, all know the value of ashes, when they are to be had, and next to them stable manure that has not been leached by the rains, or "fire-fanged" in the heap.

TOBACCO.

Finish sowing tobacco seed; and if possible secure *tobacco dust*, to be had in Baltimore, to sprinkle heavily over the bed; and as the plants grow, repeat the dusting. It will stimulate growth, and we think will drive off the fly, especially if mixed with soot or flour of sulphur. We are inclined to this theory because of its reasonableness; besides we once experimented with it in a small way to our satisfaction, but we had not the same nice material that is now at hand, and used extensively by gardeners and florists in their green houses, and on out door beds.

The stripping and conditioning tobacco should be attended to diligently this month, but great care ought to be taken, not to handle tobacco during harsh weather, and it should be carefully guarded against the high winds that shiver the best leaves when they are dry, and exposed to the storm. There is no telling what is lost in an open barn of tobacco, on one windy day or night. It loses in weight, and in looks and in the *touch*. Such tobacco will rarely ever recover the tough, kid-glove smoothness and polish that a fine tobacco should have, independent of its loss of aroma to a great extent.

FENCING.

If not already done, it might be as well to get all the materials in place so as to put them up after the 20th, by which time the stormy winds will most likely be over, and the fences not likely to be blown down or thrown out of place. We have known a long line of new rail fence, well put up but before it had time to settle and get firm, a high wind has prostrated it, giving more trouble to put up the second than the first time.

FRUIT AND OTHER TREES.

This is the time to select your fruit trees from reliable nurserymen, and to be on your guard against itinerant fruit tree peddlers. At the risk of being charged with *repetition*, we cannot avoid again urging upon every farmer the vast importance of having a plenty of choice fruits of all kinds, but of not many varieties of each class. The planting of nut bearing trees is too much neglected, both for profit and comfort—many of these can be planted along the permanent lines of fence, and in spots where they will not damage crops, yet afford shade and shelter to stock. Forest trees should be planted out this and next month. The locust is easily transplanted, and grows quickly. It is, we all know, very valuable for farm purposes, and its shade does not injure crops growing under it, like the chesnut; once get a row of trees large enough to cut for posts. Plant trees, we say, if not for yourselves, plant for posterity, and it will bless your labor in their behalf.

STOCK OF ALL SORTS.

This is a trying month on stock; *horses* ought to be well fed and groomed; they will begin to shed their coats, and be liable to take colds from exposure, which may, if not attended to in time, run into distemper or worse diseases. They are liable also at this season to have "scratches," so their feet should be well cleaned after work, and before going into the stable, either rubbed dry or washed off and then dried by a cloth or hand rubbing.—Their shoulders are apt to be tender, so that those doing hard work, should have the collars clean and soft, and the shoulders often bathed with cold water, or a decoction of red-oak bark or mullein-leaves, applied cold after they return from work at night. Keep the *work oxen* in good order, and have them well carded.

Milch Cows, especially such as have calves or about to have, ought to be well fed, chiefly on cooling food, such as roots, and cold slops thickened with bran and a little oil cake or linseed meal; good dry beds, pure water and salt with ashes equal parts, in small quantities every other day.

Sheep will require extra attention this month, as now they are generally bringing forth their lambs. Let the whole flock have access to salt always, and the run of a clover rick if possible, or a rye field. Those ewes about to yearn put to themselves at night under shelter with dry floor. Give those with lambs a lot of rye field by themselves, and feed the ewes with one gill of meal or one-half pint of oats once a day, and as many cut turnips once a day, as they will eat clean. Watch the whole flock day and night, if you can, until the "lambing" season is over. All dead lambs bury in the manure pile. If you have a flock of fine sheep, it will pay to have a person for a month or two to do nothing but act the careful shepherd. Four full bred lambs at \$15 each, would, if saved by this shepherd, well pay for his hire and board for two months. There are fortunes in sheep, if our people would only realized it, and enter into wool and mutton growing, carried on so successfully in Europe.

Hogs out to have clean comfortable quarters; the sows with young pigs should have dry warm beds, and be well fed. The pigs should have a pen along side their respective mother's pen, with an opening large enough for them to get through. Feed the sow and pigs well, on grain, milk and slops. Give great attention to keeping your *colts* and *calves*, in growing order—we mean yearlings and others.

POTATOES.

We advise the early planting of potatoes. Those for family use, and those for market, both should be planted this month or next month. Potatoes planted with us before May will be ripe for the market during these two months, August and September, and will then realize more to the grower than at any other time of the year, except it chance to happen as this year, when but a small store had been laid in, because of the unexpected long ice embargo came. The experience of years has been that Maryland and Virginia potatoes realize more profit if sold in August and September, than at any other time of the year, for the reasons stated.—they then do not have to compete with North or South.

Then, they are more likely to escape the "Bug," or there is more time to destroy it. Make the land rich, plow deep, and pulverize well with the roller; manure in the trenches. Plant cut potatoes, in hills 3 feet by 2 feet, or in drills 4 inches deep, 3 feet apart, and 12 to 15 inches in the drill. Plaster and ashes in hill or broadcast; harrow the land as soon as grass and weeds begin to peep up, taking out the front tooth to straddle the row or hills;

continue the harrow when the grass and weeds grow ; and until the potatoes are too high for the harrow ; then bar off with the mould-board to the potatoe ; after that keep down the weeds with cultivator until potatoes begin to blossom ; then plow, throwing the earth next the vines, so as to leave a brood flat hill. Follow with the hoe to complete the work, and the crop is made. If weeds spring up, hand weed. Be not afraid of the colorado pest, it is easily managed with proper utensils and Paris Green.

OATS AND CLOVER SEED.

Sow oats as soon as possible, the sooner the better. Prepare the ground nicely and fertilize liberally. Put them in with the double iron shovel plow, or harrow them in well, and then sow clover seed, 2 gallons per acre and roll. Sow a bushel of plaster and two of salt per acre, [sow salt before oats are up] as soon as the oats appear. This crop if sown early on well prepared ground, and fertilized will yield a good crop, and pay in grain and straw. A good set of clover will also be obtained. It is labor and money thrown away to sow this grain late, and put in a slovenly way, as is too often the case. It is better to sow the clover seed alone, and harrow it in lightly on the unbroken ground, just as it was left by the corn crop.

Leached Ashes for Land.

Having about one hundred cart loads of leached ashes at my command, whether would it be better to draw them out and spread them on the snow, or in the spring, just before cultivating and sowing; and what quantity could be used to the acre on ground for wheat? 2nd. Would they be of any advantage to a young orchard that I wish to fit for turnips?

The best way to treat the ashes is to compost them with barn-yard manure. If you want to make first class manure add about twenty pounds of plaster to each load of barn-yard manure, and some salt. Then draw out the manure and turn it under as quickly as possible.

It would not be best to spread the ashes on the snow, because when the snow goes away it may carry off a great deal of the most valuable parts of the ashes. This objection does not apply with such great force in the case of leached ashes as it would in the case of unleached ashes. Applying them in the spring would be better. From one to two hundred bushels of leached ashes would be a good amount to apply, though twice the amount would be made use of by the crops,

To an orchard ashes are especially valuable, as they supply many of the elements which the fruit and trees are constantly removing.—*Toronto Globe.*

CULTURE OF BOOM CORN.

The *Journal of Agriculture* describes the culture of broom corn on this wise: "Broom-corn requires rich soil; bottom land is the best, and it should be as free from grass as possible. The reason for choosing clean land will appear plain to a man who has raised a crop. The ground should be well plowed and made perfectly fine with the harrow, then marked out with shallow marks if to be planted by hand, so as not to get the seed too deep in the ground; but the best plan is to plant with a drill. The stalks must be as close as five or six inches, to prevent the straw from becoming too heavy. Of course it cannot be drilled with much regularity, but must be cut out with the hoe to the right distance when small. It is like sorghum, grows slow while small, and on most land it is positively necessary to hoe the grass out, which gives a good opportunity for cutting out to the right distance. After this is done the cultivation is similar to that of corn.

When the seed begins to fill the straw will bend over from the weight, and to prevent this the full force of the hands must be put to break the stalks over, say ten or twelve inches from where the straw grows out, or more properly the head. The weight of the seed will then, by hanging down, keep the straw straight. Now comes the busy season and the time when labor and care will add much to the value of the crop. The green straw being altogether the most valuable, it is important that it be cut before it turn red, and dried in the shade. To do this a shed is necessary, with shelves on which to lay it, say six inches deep; and enough hands be employed to cut the crop before any or much of it turns red. The seed is stripped by means of a machine made for the purpose, with two cylinders between which the corn is held in handfuls. The process is very rapid, only an instant being necessary to knock the seed all off. The corn is baled before being sent to market. The price is very fluctuating, running from \$60 to \$250 per ton."

Geo. R. Goldsborough, Esq. has been elected president; Hon. O. Hammond, vice-president; F. H. Johnson, treasurer; and D. C. Trimble, secretary; of the Talbot County Agricultural Society. Gen. E. L. F. Hardcastle and Mrsrs. H. P. Hopkins and F. C. Goldsborough, appointed an Executive Committee.

Why is a baby like a field of wheat? Because it has to be cradled and thrashed before fit for family use.

How to Improve Worn Land.

We have given several articles, specifically on this head, in previous numbers of the MARYLAND FARMER, and believe, if the suggestions or directions are faithfully carried out and acted upon, seasonably, the operator will realize satisfactory and profitable success, and will fully prove that they have been to his advantage.

But we will briefly sum up the principal points in the means recommended :

First—*Draining* ; the land should be thoroughly under-drained, so that no stagnant water will *stand* around the roots of the plants or trees, and so that the *air* can circulate freely through the earth, to a good depth.

Second—*Sub-soiling* ; the land should be deeply plowed or sub-soiled, so that the *hard-pan* below may be effectually broken up, for the double purpose of allowing the roots to run *deeper* for moisture and nutriment ; and to allow the moisture to rise from below and circulate freely, in a dry-time, when hot drouths dry and scorch or bake the surface. In connection with this thorough plowing the land should be well *rolled*, with a heavy roller, to crush lumps and level the surface, and faithfully harrowed, in order that all the soil may be finely pulverized, so that growing plants may readily appropriate to their use larger portions of the nutriment in the soil ; this gives a good, fertile seed bed, for whatever plants may be sown or planted.

Third—*Green manuring* ; sowing rank growing crops, to be *plowed-in*, for the purpose of supplying the land with lacking or exhausted vegetable matter and *humus* ; that lack or impoverishment can be supplied in this way more easily and cheaply than in any other ; but where barn-yard manure, marls, leaf-mold, swamp-muck, and the like, can easily and plentifully be obtained they answer the same purpose, but with the additional labor of hauling and spreading, but green manures grow in the place.

It is easier to bring up a poor, worn-out soil to the power of producing a rich growth of clover and grasses, than it is to make such a soil produce a full crop of grain ; then, the clover or grasses plowed-in will make a soil that *will* produce grains, roots and more grass.

Plaster, lime, ashes, salt, and the commercial fertilizers, properly applied to these grasses and clover, to be plowed-in, give more lasting and profitable results, by far, than when applied directly to the grain fields, without clover and grass. These fertilizers, alone, on land lacking organic or vegetable matter, will do little or nothing toward

making a good fertile soil ; but they *will* give very valuable results, far more than the cost, when applied to crops on land which possesses the requisite vegetable elements or *humus* ; lime does little good on land lacking vegetable matter.

Fourth—*Stock raising* ; in all systems or operations for renovating, as well as preserving, the fertility of land, stock feeding and raising should be made a prominent factor ; in almost every system of farm operations there will be more or less quantities of feed which different kinds of stock will eat, that cannot be sold to advantage, and return rich supplies of manure ; sheep, dairy cows and swine are among the most profitable. Sheep particularly distribute their droppings more evenly and frequently all over the field ; and it has been shown that their manure is richer than others—except hens and hogs. So that every system for profitably recuperating or maintaining the fertility of our lands must include sheep and other live stock breeding and feeding, to a greater or less extent. The following from an English paper is instructive on this point :

Says Alderman Mechi, the great English Farmer : “ If I want to know how a farmer is getting on, I ask him, how many pounds of meat per acre he makes over the whole area of his farm?—200 pounds per acre is my usual quantity.”

“ Plenty of meat, plenty of manure, plenty of wheat are the governing ideas of English farmers.”

How different will be their situation if her meat is to be made in America? How different will the case with our own farmers be, from what it is, if our cattle foods are fed on our farms—and the meat exported, leaving the *manure* to preserve the fertility of our soils?”

Another reason why stock raising, of different kinds, should be considered in improving these old farms, is that it requires much less manual labor to produce and put into market a hundred or thousand dollars worth of cattle, horses, dairy products, sheep or meat and wool, than to make and put the same amount of grain into the market.

Raising and feeding fine horses, cattle and sheep, fattening meats for the markets, do not impoverish the land like producing only grain ; the former makes and leaves on the land manures to enrich it while the latter constantly drains the land of its vegetable nutriment.

Hence, it will be seen that all systems for restoring worn lands should include stock raising to a greater or less extent.

“ What is that man yelling at ? ” asked an Illinois farmer of his boy. “ Why,” chuckled the urchin, “ he’s—he’s yelling at the top of his voice.”

GARDEN WORK.



GARDEN WORK FOR MARCH.

Set to work in earnest to get in main crops, if the weather permits. Have a few hot beds, in which sow lettuce and radish seeds, a few early cabbage and tomato as well as egg plant and pepper, for a few early plants to be forced. Cucumbers and symblins may also be sown on sods; but do this sparingly, if only for home consumption. Cress, chervil, beets, endive, salsify, may with profit be sown now, in hot beds, as the cress can be cut growing and the others do well transplanted, when the ground is in order, and the weather is suitable.

Sow beans and peas, parsnips and carrots and salsify in open ground. Sow onion seeds, and set out onion setts; as soon as the soil permits culture, make new plantations of mint, by replacing young shoots six inches apart. Do the same with sage, thyme, and other culinary herbs, you may have left living and growing.

Clean and dress strawberry beds. Attend to grape vines, and tie them up after a second careful pruning, and mulch around each parent vine with coal ashes, after working the soil well.

Trim, if not done before, all the small fruits, like the berries, and see that the dwarf trees are well pruned, worked and mulched, and if not vigorous, give them a dose of ashes, soot, slacked lime and well rotted manure, in equal parts, and wash the bodies and larger limbs with a mixture of equal parts of soft soap, ashes, cow manure, with some salt and lime, reduced with water or liquid manure, to the consistency of thick white wash; some add, a small amount of sulphur fine ground. Apply with a white wash brush or sheep skin nailed on to a stick, with the wool outside. This is a cheap substitute for a brush, and answers every purpose.

Potatoes.—If not already planted, do not neglect the first opportunity to do so. Work the ground

deep, open trenches 4 or 5 inches deep, put in hog's hair or manure, with a little plaster or ashes, drop the potatoes six to ten inches apart, after having been cut in three or four parts, and cover up with earth, and then long straw or coarse manure to be removed at the first working. The land should previously have been well manured or fertilized. No use to attempt to grow an early crop of this universally popular and saleable esculent, unless the land is rich and in good order, and the culture is adapted to the requirements of the plant. Let us suggest that the potato for early use be made a specialty on a large scale, for early home use or for sale. They, in most cases, if early planted as we have suggested, ripen or become so nearly so, before the Colorado bug appears, as to escape its ravages. But, be fore-armed with the great poison—*Paris Green*; so that on the first appearance of the enemy, you may be prepared to open your batteries, and pour, by the machines now sold by most implement dealers, a stream of the destructive *Paris Green*, on them—more ruinous than anything yet discovered. Last year we tried everything we could hear or read or think of, when they attacked our egg plants and tomatoes, but nothing was of any effect except *Paris Green*, but we were afraid to eat the fruit after our victory. It has been clearly settled that while the poison will not effect tubers, it is considered by naturalists that fruits or vegetables growing above ground, and coming in contact with this subtle poison, become so impregnated as to be dangerous to human life. Therefore if they attack tomato, egg-plant, or fruit bearing vines, cucumbers, &c., your only remedy is to hand-pick and squelch the dirty pests, or let them conquer for the time. We believe a large quantity of poultry would be an effectual remedy against this terrible enemy. We have seen young chicks and turkeys and guinea keets eat them voraciously. At any rate, everybody about the homestead should be diligent in destroying this terrible and ruinous multitude of enemies.

IN THE FLOWER GARDEN.

Much may be done in dressing the borders, re-trimming shrubbery, manuring, sowing hardy annual seeds, setting out flowers like hyacinths, tulips, and crocus, &c., that have been forwarded to bloom in the pit or cellar. Leave them in the pots and protect, and there will be an earlier bloom from them than from those left in the beds, out of doors all winter. They will bloom, and be ready to be removed in time for summer annuals, or later bulbs to take their places in the parterre.

Caution.—We would urge upon our readers the necessity of caution, in setting plants or flowers

and of forcing those in the hot beds, to not be too anxious to expose them out of doors. Many are seduced into active gardening by a few days of warm weather, in this month, and their work is "love's labor lost," by a sudden freezing spell. It is best, therefore, to proceed cautiously, and set out or plant the seeds of a few vegetables, so that they can easily be protected, on the appearance of a change of weather. The winds of March, do much injury to tender plants, and they should be protected by boxes or hand glasses, &c. Plants once checked by frost or whipped by the wind, rarely do well, and do not bear any earlier than strong stocky plants, set out in April or May; when they grow right off without any hindrance. This does not apply to such as potatoes, peas, onions, and vegetable roots, as carrots, beets, &c. Sow these as soon as may be, as we have just above advised. Be sure that the ground is in good order for working, and that the weather seems settled. Remember, the one great secret of having a good garden is, to have a large quantity of rotted manure well intermixed in the soil and judiciously rotate the crops in succession, that small space shall produce more and better vegetables than a very large space half manured, badly cultivated and no succession of crops on the same space. If you use fertilizers, be sure and mix them well with twice their bulk or four times their bulk in dry garden soil, and then barrel up for a few weeks before sowing over the land. When thus sown, chopt or raked well into the soil. *Henderson* and other gardeners find it economical to use 1,200 or 2,000 lbs. of guano, in this way, on an acre of already fertile soil. Other manures in like or heavier quantities according to their chemical powers in yielding food for plants. By heavy manuring judiciously applied, a large amount of labor will be saved, in producing the same quantity of crops, and on small plots, yielding several crops the same year of such plants as are made to follow each other. We have seen three crops on the same ground, at different stages of growth, so as to closely follow each other in maturing.

"Is Greece in Turkey?" asked a small boy of his father at the breakfast table. "Why, no, what makes you ask such a foolish question?" responded the father. To which the boy replied: "I thought all turkies had grease in them."

American apples—especially Newtown pippins and the Lady apples—are reported to have made their appearance in Covent Garden Market, London.

For the Maryland Farmer.

ABOUT DEEP PLOWING.

JERUSALEM MILLS, January 26th, 1877.

In kindly printing my article in the September number of your paper, viz: *Deep vs. Shallow plowing*; you put in notes questioning my theory, regarding the action of deep plowing, which I have not had a chance until the present to answer.

I said, that I wanted the ground deeply pulverized so as to let it take and hold more water. You said that "you wanted the water to come up from below." Now, where does the water come from. Doesn't it come from above in the form of rain. Then if it comes from above how are you going to get it from below if it is not there, and how is it to be there if it does not soak down through the earth?

One great reason for my theory is, that in almost every agriculture journal, you pick up, you can find an article against cutting down the forests, giving as a reason that the cutting down has diminished the general flow of water in the rivers and streams and has increased the freshets. They don't say there has been any diminution of the rain fall, but that instead of being held and let off gradually by the leaves and ground, having been let in by the roots of the trees which is nature's way of subsoiling.

What I want to do, after having taken away nature's plan, is to supply the place with something as near like it as we can, of which, in my estimation there is nothing more like it than subsoiling.

I admit that your theory will work in dry weather when you have the hot sun to act upon the surface, the moisture of which has given place to others that may come up from below, if you have it there; but, if it has not gone down from above the amount will be so small as to be imperceptible in its effect; on the other hand, with "deep tillage" you keep the surface drained in wet weather and have a larger supply of moisture to call upon in dry weather.

Yours, G. B

[NOTE.—We are much pleased with our friend's theory, and understand that he is generally correct and knows what he is talking about; for he has been there; and he probably knows the fact, also, that in all dry seasons, from first of June to September, the earth is more moist *below* the surface, one foot or many, than *on* it, where evaporation is constantly going on rapidly, and by deep or sub-soil plowing we enable that sub-moisture to rise to the surface.—*Eds. Md. Farmer.*]

Why are cents separated from dollars by a point? To make sense, of course. Don't you see the point?

TOP-DRESSING SPRING WHEAT.—*Editor Canada Farmer*:—I made an experiment to show what can be done by top-dressing spring wheat. The land was of fair quality but much in want of manure. On May the 17th, sowed $8\frac{1}{2}$ acres with Black sea wheat. Weather cold and wet; not well got in; top-dressed May the 24th, per acre, with 100 lbs. salt, 40c., 1 bushel ashes, 20c., 100 lbs. plaster, 60c., 55 lbs. superphosphate ammoniated, \$1.10, from Brockville, 18 lbs. sulphate of ammonia, \$1.08, carriage and sowing, 32c. per acre, \$3.90. It grew strong and evenly, no short or weak stalk, 3 feet 10 inches high. Straw strong; the storms sometimes laid it, but it got up again, I believe owing to the salt. It appeared to give 42 bushels to the acre, but the maggot hurt it very much. On $8\frac{1}{2}$ acres there were 519 stocks of 14 good sheaves each; some of it was threshed and gave 2 lbs. 2 oz. of wheat and $2\frac{1}{2}$ lbs. straw each sheaf, or about 30 bushels of wheat and over 440 lbs. straw per acre. The maggot destroy not less than 12 bushels per acre.—*Canada Farmer*.

GOOD PLOWING.—Plowing is an art. A really good plowman is a rarity as much as a really good landscape painter, and yet plowing is one of the main items of valuable labor upon a farm. I have seen one man, when plowing, lean forward with hands upon plow handles, and laboring at one time to keep the plow from going too shallow, and at another to keep it from going too deep; making a furrow of irregular depth and width; here a balk, and there a ridge, I have seen another man take the same team, arrange the gearing, and plow with one hand on the plow handles, turning a furrow clean, of even width and depth. Unfortunately too few plowmen understand the principles of draught, and hence many a good plow is condemned bad. It is this want of knowledge how to use a plow that keeps back progress and reduces the value of crops on many a farm. I speak knowingly, having had practice, more or less, between plow-handles for ever fifty years, commencing when eleven years of age. I studied the art of plowing practically, and being engaged in supplying farmers with plows a part of the time mentioned, there was a necessity of knowledge of the form of the plow and the principles of draught. In exhibiting and competing at state and county fairs, it became necessary for me to know how to fit my plow for this work, and more necessary to find a plowman who understood the whole matter. It took weeks to find such a plowman; but I did find him, and every time he was put in competition he won.—*Northern Exchange*.

Top-Dressing Wheat—the Ram.

Editor Weekly Globe:—I have 50 bushel of wheat sowed principally upon pea sod plowed twice and well harrowed in; soil rather a light sandy loam. Would you advise me to top-dress it this winter or not.

I have purchased a thorough-bred Cotswold buck. And I want to use him to the best advantage without injury to himself or to his offspring.—My flock consists of two hundred ewes and three bucks. I am now using the Cotswold to five or six ewes every morning, once each. Can you advise me whether this is too much, and how many should he serve this season? We feed him one pint of oats three times a day. He is shut in the stable on hay at night, and is loose on a small grass plot in the day time with a few potatoes.

Arden.

NOVICE.

It might be found profitable to top-dress the wheat or it might rot. If it is well done with well-rotted barn yard manure, and is gone over in the spring with a chain harrow, or a harrow with teeth slanting backwards, so as to spread it evenly, top-dressing would no doubt pay.

The amount of use you propose to give your ram is not too much if he is thoroughly mature and strong and he is fed up to it. It will be better to keep him to five ewes daily than to six.—*Canada Globe*.

ENGLISH AND AMERICAN FARMERS.—As a reason why American farmers ought to be contented, the *Agriulturist* gives this account of the farmer in England: "He does not own his land, except in very rare instances, and is obliged not only to pay a yearly rental of \$20 to \$25 per acre, but to keep the hardly worked land in good condition, is forced to employ a working capital of at least \$50 an acre, to be expended in artificial fertilizers. is prohibited by law from killing wild animals, such as rabbits, hares, foxes, partridges and pigeons, while his cats and dogs are killed by his landlord's gamekeeper lest they might injure the game. This game feeds on his crops and he must submit to see his fields sometimes ravaged by them. He is obliged to raise such crops as his landlord considers best for the land. He is bound to all these requirements by an exacting lease, which makes him a species of serf to his landlord."

Why was the first of September like the transgression of Adam? Because it was the beginning of the fall.

It was an old but a good thing said by a French paragrapher lately, to the effect that he hates a girl when she is trying to be a woman, and a woman when she is trying to be a girl.

Live Stock Register.



Corn or Oats, for Feed?

Most farmers, without carefully thinking and studying the subject, would be loth to give up raising corn, as general crop, for either feeding or to sell; and few would give up growing *corn* for *oats*, as a chief crop. And it would not be wise or desirable to wholly give up that rich really American grain; there are some few purposes to which it is adapted for which no other grain can fully take its place.

But considering the labor required, both in planting and gathering the two crops, there is much in favor of making oats the chief crop, annually, in preference to corn or maize.

For all working-teams—horses, mules and oxen—oats are better than corn; they possess more bone and muscle material, afford higher spirit and better endurance, than corn; though the latter tends more rapidly than the former to fatten animals; no roadster or race horse can perform as fast and long on corn as on oats; the former has a more dull and sluggish effect, while the latter are more enlivening, and are not so heating or feverish. Weight for weight oats are the most profitable feed, compared to the cost of growing them, for all purposes on the farm.

But, for the six coldest months of the year, a mixture of one-third corn with two-thirds oats, by weight, is undoubtedly the best feed for horses; and oats alone for the other six months: and in both cases have all the grain ground into coarse meal.

Another point in favor of oats is, that they leave the land smooth and in better shape to plow for the next crop, in the fall, or even for the next spring. Oat-meal makes better griddle cakes than corn-meal, as light and puffy as buckwheat.

Then if sowed late, about three bushels to the acre, so that they will come into the milk-state about the last of September; then be mowed and cured before getting wet, by laying part of the day in swarth and then turned nicely over to cure the other side, they make feed as good as the best corn fodder; but they should, before the straw loses its

green color be cut, just as it begins to turn slightly.

But, it is a wasteful operation to feed ripened oats in the sheaf or straw, without being cut very short or fine; the grain is never as well masticated, chewed up, when fed in the sheaf as when thrashed out and ground into meal, and will not go nearly as far, as when ground, and the straw well cut up.

Sheep Improving Farms.

At a late meeting of the Experimental Farm Club, held at West Grove, Pa., the question was asked "What kind of stock is best for farmers to keep in order to improve their farms?" and was answered very clearly and emphatically in favor of *sheep*. Mr. Thomas Wood said that he had kept sheep for more than forty years, and that he had improved more than a thousand acres of land by their aid. By pasturing his land with sheep he had succeeded in eradicating the "daisy" and many other noxious weeds. He thought that sheep could be very advantageously used on many of the thin, poor dairy farms in Pennsylvania and New York; that they would make all poor and barren lands fertile and profitable easier and better than would the same amount of capital invested in any other way.

One hundred sheep would, if well cared for, produce forty wagon loads of manure during the winter, and he estimated the value of the manure of each sheep to be at least fifty cents per annum, as the manure from sheep is stronger and better than that from any other domestic animal. The best crops he had ever raised were raised on old sheep pastures. One reason for this is that the manure from sheep is very evenly distributed, and that the pellets are covered with a coating of mucous which in a great measure prevents their being dissolved by rains, and they are slowly absorbed from the under side of the pellet. When sheep are left out at night, they select the top of a knoll upon which to sleep, and so manure the most barren spots in the field.

Mr. Sharpless, of Philadelphia, fully indorsed these views. He was strongly in favor of having sheep on every farm. As a neighbor of his said, "They were good for the land, good for the stomach, and good for the pocket."

Mr. Sharpless then asked if it would pay him to buy a fodder-cutter to cut his corn stalks. This question gave rise to an animated discussion, in which quite diverse views were expressed. One member was very strong in favor of cutting the stalks, as the cattle would eat more and waste less, and the manure would be left in a much better con-

dition. Another member thought it better to chop off the butts of the stalks, and then feed only tops. Another recommended a stalk-cutter which cut and tore the stalk lengthwise, as when cut in that manner they are less apt to injure the mouth. The general opinion of the club was decidedly in favor of cutting the food.

M. Thiers, on Sheep.

M. Thiers says, "The agricultural industry of France cannot dispense with sheep." The number in that country at present is 49,000,000. The scourings secured from a careful washing of the sheep are used not only for the fertilization of the soil, but also for the manufacture of saltpeter, a constituent of gunpowder. The latter process is new and ingenious. The chemists carry the scourings to their factory and there boil them down to a dry, carbonaceous residuum. The alkaline salts remain in the charred residuum and are extracted by lixiviation with water. The most important of the alkalies obtained is potash, which is recovered in a state of great purity. It is computed that if the fleeces of all the sheep of France, were subjected to the new treatment, the nation would derive from this source alone all the potash she requires in the arts—enough to make about 12,000 tons of commercial carbonate of potash, convertible into 17,500 tones of saltpeter which would charge 1,870,000 cartridges.

BIG TREE.—The biggest tree in California is not in the Yosemite Valley. King's River Valley, in Fresno county, is 5,000 feet above the sea, and its walls, which are about 3,000 feet high, are very precipitous. In this valley a new grove of colossal redwood trees has been discovered. One of them eclipses all that have been discovered on the Pacific coast. Its circumference, as high as a man can reach and pass a tape-line around, is a few inches less than 150 feet. This is beyond the measurement of any tree in Calaveras Grove. The height is estimated at 160 feet, and a part of the top lying on the ground is over 100 feet in length.

PLANTING NUTS.—If the planting is done in the fall it is better to mulch the ground with straw, leaves, marshhay, or any like material; this will prevent baking of the soil after the spring rains, and keep it in a nice mellow condition. The mulching should be removed in the spring or, at least, so much that it will not interfere with the growth of the young seedlings.

Even the hardest times clocks employ their regular number of hands.

Breaking Calves and Colts.

The time is now at hand when colts and calves are in order; a few words in regard to breaking or training them are appropriate.

These young animals will learn almost anything we desire, if we are gentle and steady with them.

Simple words of instruction, often repeated in the same manner, are very soon understood by them.

They will learn all other plain words, when kindly managed, as well as the words "who and go; haw and gee," and the like.

The way to make handy and obedient oxen is to begin with calves, yoking and driving and handling them while very young. The same with colts; and we give these hints in time, so that the boys may now begin with their young calves and colts; but one thing, above all, never get angry or spiteful with them.

The following from our Exchanges is timely and to the point:

A proverb says that, "just as the twig is bent the tree's inclined," and this may be applied to the training of colts and calves. Colts should be accustomed early to the halter and the bridle; they should be kindly and gently treated, and not annoyed in any way. Many horses have been rendered vicious from having been taught tricks or made to suffer annoyance from boys in their early days. Colts may be taught to go or come at the word of command, to "lift" the foot and endure mimic operation of shoeing. Being thus trained, they remain docile during their lives. In the same manner calves may be accustomed to the words of command which they will have to obey when they are steers or oxen. They should be made familiar with the yoke, taught to stand quietly while it is being put on or taken off, and taught to draw light draught and to obey all the words of command in the teamster's or plowman's vocabulary.

Two ounces of common tobacco boiled in a gallon of water is used by the Chatham street dealers for renovating old clothes. The stuff is rubbed on with a stiff brush. The goods are nicely cleaned, and strange to add, no tobacco smell remains.

Rochester Express: Any man who has made a bet on the election, whether he has won or not, has his consolation, at least, that he has broken a statute of his state.

"Her Face is a Garden of Flowers" is the title of a new song; but flowers is evidently a misprint for flour.

THE DAIRY.



Best Butter in the United States.

Many judges of good butter aver that the best butter that can be found in the United States, is made near Philadelphia. But if the same degree of neatness and care be observed in other localities where the cows are supplied with a good grass there will be no difficulty in making an article fully equal to Philadelphia print butter. The milking is done quietly and rapidly, the same milkmaid always attending to the same cow. The spring-house is usually of stone, on a side-hill, the floor covered with running water, and therefore, always cool and free from odors. Deep tin pans, painted on the outside, with bails for handling, are filled to the depth of three inches, placed on an oak floor, surrounded with cool, clear water of a temperature of 58 degrees. The cream is taken off in twenty-four hours, kept in deep vessels holding two gallons, and stirred whenever a new skimming is added. A barrel churn is used, the churning lasting an hour, when a little cold milk is added twice, a few turns given to the churn each time, and the last water is scarcely colored with milk. A gentle rocking of the churn soon collects the butter, which is left two hours to drain off the remaining water through a small hole made for the purpose. The butter is worked by a corrugated wooden roller revolving on a shaft supported over the centre of the table, which also revolves under the roller. The roller does not quite touch the table, so there is no crushing of the particles, but a separation which permits the water or milk to flow away. A cloth rung dry in cold spring water is repeatedly pressed upon the butter until not a particle of moisture is seen upon it as it comes from the cloth. An ounce of salt to three pounds of butter is then thoroughly worked in by the aid of the same machine. It is then weighed in pound prints deposited in trays, and set in water to harden. The next morning it is wrapped in wet cloths, each pound by itself, put in a tin case upon wooden shelves, with two compartments of pounded ice to keep it cool and surrounded by a cedar tub, it is sent to market and sold at \$1 a pound.—*New York Herald*.

Models in Butter.

Those who visited the international show at Philadelphia will remember the beautiful model of a human head and face made of butter there exhibited; though it was a butter model, we don't know whether it was model butter, as we did not taste or smell it. The same lady is at work on another similar model, as will be seen by the following extract:

"Mrs Caroline S. Brooks, whose model in butter of the 'Dreaming Iolanthe' attracted so much attention at the centennial exhibition, is now at work on a new study, which she hopes to have completed in a few days. The butter by continued exposure to a uniform temperature of 62 degrees soon acquires a solidity sufficient for modeling purposes. The new study is a head in *alto rilievo*, and is remarkable for sweetness of expression and beauty of finish. The 'Iolanthe,' which was modeled in an ordinary milk pan, is in a state of perfect preservation, being inclosed in a frame packed with ice."

COLORING BUTTER.—*What imagination will do.*—The London *Agricultural Gazette* tells a good joke on a committee appointed to award premiums for butter shown at a dairy exhibition, during the past year. It well illustrates the power of the imagination and the sympathy existing between the senses of the sight and taste. It says:—"We are told, on good authority, that at an English dairy show, last year, one exhibitor showed samples of butter in two classes. For butter in the Jersey class, he took the first prize, while in the class for any variety, his samples were unnoticed. The man declared that both samples were made from the same milk and churning—the only difference being that the 'Jersey butter was colored. The judges declared this class to be of finer quality than the other."

ANY dairyman troubled with cows having sore teats, should use plenty of linseed oil before and after milking. He will find but little if any sores or cracks about his cows' teats if this is done. Many cows are kickers that would delight to be milked if a little linseed oil were used on the teats. I recommend a vial of it kept in every dairyman's stable. Sometimes teats appear smooth that are tender and only need a little oil to make the cow happy.—*Exchange*.

Prof. Nessler says that the keeping qualities of smoked meat do not depend upon the amount of the smoking, but upon the uniform and the proper drying of the meat.

Cows for Milk.

There are two considerations to be taken into account in judging the value of dairy cows—facts, which are the measure of value; viz: 1st, when the milk is to be sold by the measure, in market, in which case, *quantity* is to be taken into account. 2nd, when it is to be made into butter and cheese, in which case the *quality* is the principal consideration.

A cow which might be most profitable for sale of milk in market, might not be most profitable for making butter and cheese. As a general rule cows which give very large quantities of milk give that which is less rich in quality; and that class of cows giving less generally give a richer milk.

Aldernys, Jerseys and other breeds of small cows usually give richer quality but less in quantity; while the Short Horns, Holsteins and other larger breeds, generally give larger quantity but poorer quality; though there are exceptions in both cases. There is a great variety of opinions in this regard; some are earnest champions for Aldernys; some, for Ayleshires; some, for Devons; some, for Herefords, and others for Holsteins and Short Horns; while some maintain that crosses of these on common native stock are the best dairy cows.

But in all cases it should be borne in mind, that the kind and quantity of feed, the care and attentions, the age and the season, all have much to do with both the quantity and quality of milk which a cow will give; and also, as to her capacity for taking on fat or making milk. Manner and regularity of milking also affects the milk value of cows. It is a wide and interesting subject.—

The weight or specific gravity of whole milk is a little heavier than water; cream is lighter than water on whole milk, which is the reason that cream rises to the top or surface; and closely skimmed milk is about the same weight as water.

Haidlen's tables of the analyses and weight of good, pure milk, averaged from many specimens analyzed, give the following, which shows that something over eight-tenths is water or serum.

Water (serum or whey) . . .	873.00
Butter (oily matter.) . . .	30.00
Caseine, (cheesey matter.) . .	48.20
Sugar of Milk (starchy.) . .	43.50
Phosphate of Lime.	2.31
Magnesia.	0.42
Iron.	0.47
Chloride of Potassium. . . .	1.44
Sodium and Soda.	0.66

	1000.00

These tables show that milk contains nearly equal proportions of butter, cheese and sugar, when

the water is excluded; all of them nutritious, and adapted to building up and sustaining the animal system. The specific gravity of milk compared to water is as 1000 to 1031.

Hence, the *Hydrometer* is, by no means, a test of the purity or value of milk, as it proves whether much water has been added to milk of which the specific gravity is previously known; but the *lactometer* is a very different and safer instrument, as it shows the actual richness of milk in cream.

If cows are fed liberally on rich, succulent feed, such as beets, carrots with clean corn-fodder, or good millet and timothy hay, they will make more milk and richer, than if, fed on corn-meal and hay, in which latter case they will more readily lay on fat. The age of cows also has something to do with the quality of milk; the majority of testimony we believe maintain that very young and very old cows give less, proportion of cream than those of medium age; though this, like others, is a mooted question.

A Profitable Cow.

The *native* cow Moll, six years old, owned by Geo. L. Dow, Cuyahoga Falls, Ohio, dropped her last calf May 8th, 1876. Three weeks after calving, she gave 61, 14-16 pounds of milk in exactly 24 hours on grass alone. After this, no regular account was kept until Sept. 5th 1876, at which time I commenced making butter as follows:

Sept. 6 to Oct. 1,.....	29 14-16 pounds.
Oct. 1 to Nov. 1,.....	30 8-16 do.
Nov. 1 to Dec. 1,.....	30 5-16 do.
Dec. 1 to Jan. 1,.....	34 10-16 do.

Total.....125 5-16 pounds

For the months of September, October and November, there was sold and used of her milk an average of four quarts per day; in December only one quart per day. This cow weighs 1050 pounds is red and white in color, and has a perfect escutcheon.—*Country Gent.*

BUTTER MAKING.—Harris Lewis, of Frankfort, read a paper on "Butter-making." The quality of the butter depends upon the condition of the milk, and the method of its manufacture, including the packages and the packing. A butter cow above all others should be kept quiet and contented. Pure water is a prime requisite. Many failures to make good butter can be traced to impure water. The cow may be a machine to turn herbage into milk, but she is not a filter capable of purifying all of the filthy waters some are compelled to drink. Mr. Lewis has had better success with shallow than with deep setting, yet considers that there is little difference in the results that may be obtained from the two methods. He has obtained the best results from keeping the temperature of milk from 58° to 60° during the hot weather, and at from 60 to 65 degrees in cold weather.—*Ex.*

THE APIARY.



Do Bees Injure Fruit?

THEY DO NOT.—They simply feed on such fruits as have been wounded or punctured, by other causes, and thus prove their frugality, by saving what would otherwise be lost; they suck the juice which they find running out of punctured grapes; they have no jaws suitable for puncturing fruit skins. This was proved in a discussion by the Potomac Fruit Growers years ago.

We take the following from an exchange:

MR. EDITOR:—Last fall I wrote an article, under the above heading, to the *New York Tribune*, in which I stated my observations, and censured that wise (?) Professor Riley for his bee-destroying recipes and advice. But they did not see fit to publish it.

Perhaps Prof. Riley knows all about bees; so did Agassiz, and yet we know he was in error, when speaking about swarming, comb-building, etc.

Had Prof. Riley made close observation, he would have found that bees do not puncture fruit, and would have had no occasion to publish his ignorance, by giving his cobalt recipe. He would have benefited mankind a great deal more had he taken a dose of the mixture himself, for I think we can spare such professors better than the bees he has caused to be killed.

This fall I took a bunch of Delaware grapes (the most tender variety we have here,) and put it on a hive, directly over the bees, and watched proceedings; but not a single berry was opened; then I broke a few berries, upon which they went immediately to work, sucking them dry; thus showing that something besides bees does the mischief.

Now, if bees were so destructive to fruit as some try to make out, how is it that so many are kept in Germany, France and Italy, where fruit, especially grapes, are extensively raised? They know that bees are beneficial to fruit culture, and bee-keeping is encouraged instead of persecuted.

In Italy there is a law regulating the size of hives and frames. If the bees destroyed fruit, there

would have been, in those countries, laws enacted long ago to prevent their being kept. And further, if bees destroyed grapes, would they not do so every year, and not some years only, as several writers state in Report of Agriculture for 1871? It may be said that bees do not work on the same flowers every year (linden and buckwheat, for instance,) but that is because they secrete no honey but grapes always contain juice.

But no matter how foolish and groundless a theory is, it will have some supporters.

H. O. KRUSCHKE.

THE HONEY BEE.

The honey bee iz an inflamible bugger, sudden in hiz impresshuns and hasty in hiz conclusions, or end.

His natral disposishun iz a warm cross between red-pepper in the pod and fusil oil, and hiz moral bias iz, "git out ov mi way."

They hav a long boddy, divided in the middle bi a waist spot, but their phisikal importance lays at the terminus of their subburb, in the shape ov a javelin.

This javelin iz always loaded, and stands red dy to unload at a minute's warning, and enters a man az still as thought, az spry as litening, and as full oph melankolly az the toothake.

Bees never argy a case; they settle awl ov their differences ov opinyun bi letting their javelin fly, and are az certain tew hit az a mule iz.

This testy kritter lives in congregations numbering about 20,000 souls, but whether they are male or female, ov conservative, or matched in bonds of wedlock, or whether they klub together and keep one wife tew save expense, i don't kno nor don't kare. I never examined their habits mutch, i never considered it helthy, for what would it profit a man tew kill 99 bees and hav the 1 hundreth one hit him with his javelin?

The drones seem alwas bizzy, but what they are about the lord only knows, they don't lay up enney honey, they seem tew be bizzy only gist for the sake of eating all the time, they are alwas in as much ov a hurry az tho they was going for a dock-ter. I suppose this uneasy world would grind around on its axletree onst in 24 hours, even if thare want enny drones, but drones must be good for somthing, but i kant think now what it iz. Thare haint been a bug made in vain, nor one that want a good job; thare is ever lots ov human drones loafing around blacksmith shops, and cider mills, all over the country, that don't seem tew be necessary for enny thing but tew beg plug tobacco and swear, and steal water-melons, but you let the

cholera break out once, and then you will see the wisdom of having just such men laying around loose, they help count.

Bees are not long-lived—I can state just how long their lives are, but I know, from instinct and observation, that any critter, be he bug or be he devil who is mad all the time and stings every good chance he can get, generally dies early.

The only way to get the exact fighting weight of the bee, is to touch him, let him hit you with his javelin, and you will be willing to testify in court that somebody run a one-tined pitch-fork inter yer! and as for grit, I will state for the information of those who haven't had a chance to lay in their vermin wisdom as freely as I have, that one single bee who feels well will break up a large camp meeting.

What the bees do for amusement is another question I can answer, but some of the best read and heaviest thinkers among naturalists say that they have target excursions and heave their javelins at the mark; but I don't imbibe this assurance raw, for I never knew enny boddy, so bitter at heart as the bees are, to waist a blow.

There is one thing that a bee does, I will give him credit for on my books—he always attends to his own business, and won't allow any boddy else to attend to it, and what he does he does well, you never see him altering enny thing, if they make any mistakes it is after dark and it ain't seen.

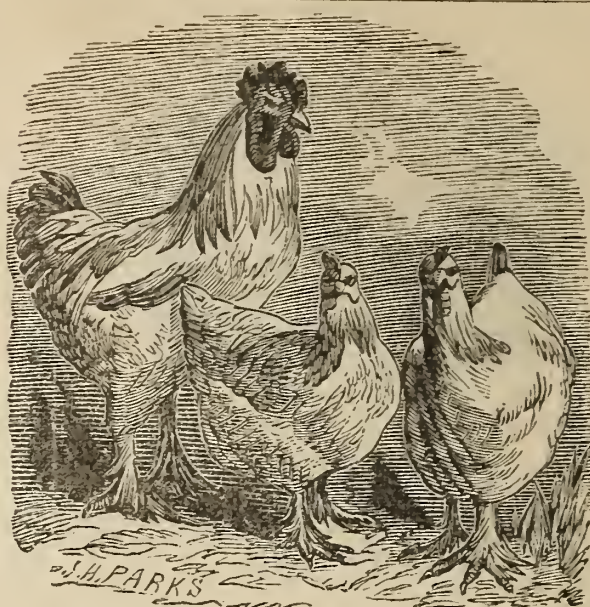
If bees made haff as many blunders as the men do, even with their javelins, every boddy would laugh at them.

In ending of this essay, I will cum to a stop by concluding, that if the bees was a little more pensive, and not so darned peremptory with their javelins, they might be guilty of less wisdom, but more charity. But you can't alter bug nature without spoiling it for enny thing else, enny more than you can an elephant's egg.—*Josh Billings.*

THE MARYLAND FARMER.—It must be a great pleasure to the farmers to receive promptly every month a sprightly journal devoted to the interest of their calling and containing a large amount of interesting, instructive and amusing reading.—Such a journal is the MARYLAND FARMER, and every farmer who has it in his power to get it, should not be without it.—*Montgomery Advocate.*

ATTENTION, FARMERS.—The old and much sought after friend of the farmer, THE MARYLAND FARMER, is on our table. This valuable journal for the month of February is equal if not superior to previous numbers, embracing in its columns articles of great interest to our agricultural community, and many valuable receipts for the household.—*Frederick Examiner.*

The Poultry House.



For the Maryland Farmer.

Care of Fowls.

Being a subscriber to your valuable journal, I contribute a mite to the *Poultry House*. We keep the much abused Brahmas; some correspondents call them lazy and unprofitable fowls, because they will not lay well without food in plenty, and proper care.

In winter, throw the grain and shells to them bountifully, with plenty of good fresh water; give good shelter and you will be amply paid in nice, large eggs for breakfast these zero mornings, which is a luxury; besides a good supply for the grocer; and you have the bodies left and the droppings, which, if properly cared for, will surely pay for all feed.

Our fowls are not lazy, by any means; when weather is fine you see them out in the fields and around the stacks busily scratching in search of insects and scattered grain. There is more in raising lazy fowls than a great many suppose; I am satisfied that if you keep the food laying by them, all the time, they will become decidedly lazy; for example, I got some eggs from a well known breeder; and at the same time a friend got some also; we set them and they hatched about the same time; my chicks were with a very smart mother; and I did not feed them all they could eat, but allowed them to try to find a portion of their living; the consequence is, mine are smart and not lazy; but, I find the others very lazy; because piles of food were laying by them all the time; they are no larger and not better than mine are.

One thing that makes me love the Brahma fowl is, they are so gentle and contented; ours sing sometimes when I have them on the way to market in the wagon by *keeping account*, we find this breed quite profitable, for all so much is said about their eating their heads off.

A. W. FRIZZELL, Pikesville, Md.

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NOTICE.—With this month the first quarter of 1877 ends, and so the first quarter of the present volume of the MARYLAND FARMER.

Large numbers of our subscribers have already done us the favor of paying their subscriptions for the present year; and others will much oblige us by paying as soon as they can; for we need the money to pay our large weekly expenses.

Many have done us the further favor of showing their appreciation of the FARMER by inducing their acquaintances to also subscribe for it—and have our thanks.

WEATHER AND WATER.—The rain-fall and snow, for January, 1877, has been more than in previous, being 3.75 inches, against 3.25 inches for many years before. The average cold for the same months this year has been greater than heretofore, being as low as 31.7° this year against 37.1 previous years. We are indebted to the monthly reports of the Government Signal Corps for these facts.

DO SOILS AND GRAINS DETERIORATE?

Yes, if starved and neglected; so do horses, cattle and other animals.

We know of lands, in the neighborhood where our boyhood was spent—and we have seen sixty winters—that long ago ceased to bring the sound, healthy crops of grains and fruits which they formerly produced. Other lands, in same section, long ago failed to produce their wonted crops of superior grains and fruits, but by proper, reasonable treatment they again give as good, healthy products as ever; and still, a few other farms, in the same neighborhood have not failed to produce as good quality of grains and fruits, during these many years as they ever did, and as much of them; because the lands have always received the fair, natural treatment requisite to secure such results.

We do not believe there is anything in the *nature* of things why, and that should cause, soils and grains to deteriorate—to “run out;” it is only from bad *practice* that such results are caused. If the land be constantly and completely supplied with all its original and native ingredients and only sound healthy, clean seed be selected, well matured and carefully preserved; if all this be carefully done, we do not believe there will be any deterioration of soils, or grains, in any section of the country. In the processes of nature, where soil has not been robbed and laws of plant-life have not been restricted, no deterioration will be found. On the broad prairies, where the cupidity of man has not yet impoverished the soil, the wild or native grass, flowers and plants are as rank and thrifty as when pioneers first viewed them with delight.

We have seen even inferior seed carried from the old lands of New York to the virgin soil of the West produce better grain than the seed that was sown; because the new soil was still in productive capacity.

This is an interesting and important subject, and we wish to have it discussed in our columns, by those who have made careful experiments, and can mention positive results; we shall be pleased to have communications from those who have had experience and observation directed to this matter, and who can state instructive facts to the readers of our Magazine. Mere speculations would be of little use, but accomplished results, giving light on the subject, will be of great value, and such we desire, from all quarters; as it is our aim to give the best light possible on such topics.

The preservers of fruits, vegetables and meats, are noted for getting all they can, and canning all they get.

Soils—How Made—Books.

The young student, who is studying this subject for the purpose of aiding him to be a more successful farmer, will learn of what and how they are made; and here is where a knowledge of geology comes in.

The largest portion of all soils is made of different kinds of rocks, freely pulverized and dissolved; all soils are different from simple earths, because the former contain portions of decayed vegetables, of some sort, while the latter is purely finely powdered rocks without vegetable matter; and while all soils are, in part, earth, all earth is not soil.

Rocks become decomposed and rendered powder by different agencies, such as the action of the air, and water, and frost, and by being crushed and ground against other rocks; first in larger masses and then reduced to smaller ones by the various forces in nature which are constantly moving and powdering them; and during this operation vegetable matter is continually mixed with the powdered rocks; and this mixture is soil, composed of *inorganic* matter which is the crushed rock, and *organic* matter which the decomposed vegetables.

This distinction of organic and inorganic matter is given, from the fact that the rocks are not generated and do not *grow* from regular *organs* as vegetables and animals do.

Soils are principally named according to the kind of rocks from which they are made; for instance *sandy* or *silicious* soils or lands are made from the various kinds of quartz and sand-stone; soils or land in which lime stone predominates are *lime* or *calcareous* soils; those in which *clay* and *alumina* abound come mostly from different slaty rocks; and another soil called *marl*, is a mixture of *clay* and *lime*.

Of course each of the soils above named, have mixed with them portions, more or less, of all the others; but the predominating ingredient gives the name.

Then there are other soils, known from the particular manner or conditions by which they are formed; *alluvial*, those which are made by the flood of streams which carries the lighter parts of earth and settle it in low places, like the banks of streams and flats along their course; this is, undoubtedly, the very best land or soil that a farmer can have, as it is generally the very best portions of all the soils, over which the waters flowed, drifted into these places when the flood ceased.

Another soil, and next in value to the alluvial, is *loam*, which is composed of portions of the others, but contains a large proportion of organic or vege-

table matter well decomposed; and is called clay-loam, or sandy-loam, or calcareous-loam, accordingly as it contains a larger share of clay, sand or lime.

Hence, one having a fair knowledge of GEOLOGY in its connection with land, can judge, to a considerable extent, the nature of the soil, by knowing what are the rocks under and around it. But none of these rocks will make a productive soil without a large mixture of vegetable matter—which is manure.

The young student, in our rural primary schools, when he has taken this first step in learning geology and its important and interesting relation to farming, will see the benefit and pleasure in still further pursuing the subject, in its many branches and bearings.

And then when he has thus got the basis, the foundation work, for the growth of plants, he will at once see the necessity and pleasure of beginning at the beginning of the study of BOTANY, from which he will learn the foundation principles and practice of *plants* and *plant growth*, as geology taught him in regard to soils.

So, in regard to other interesting sciences, which will so richly enhance both the profits and enjoyments of the farmer; and if earnestly adopted and practiced would do much to keep our young people on the farms, contented and happy, by showing that their business has a wider range of what is charming, novel and remunerative than any other profession that they can follow.

And it is for *this* purpose that we wish to see book-writers, who are capable and have the right spirit, prepare suitable and attractive *Text-Books* on these subjects for our primary schools.

Suitable Text Books.

Last month we gave in the MARYLAND FARMER some suggestions in favor of teaching agricultural knowledge—practical and scientific—in our *primary schools*, particularly in the rural districts, among farming communities.

We now supplement those suggestions with hints upon the necessity of proper *Text Books*, for young students or beginners, as well as for the aid of teachers in such schools. We have many very able books, on Agricultural Science, eminently suited to and beneficial for advanced and educated farmers; and which most of that class can read and study to their profit and pleasure.

But the great want is, books adapted to children, as the spelling book before the grammar, and the simple arithmetic before the higher mathematics. Primers of chemistry and geology, from which

children may learn the source and nature of rocks and soils, how soils are made, and how to modify them; primmers of botany and vegetable physiology, by which children may learn the history, structures, quality and demand of plants and fruits; primmers on natural history and veterinary science, that the students may know the wants, diseases and cures of our domestic animals; and so on, to the end of the chapter of farming—of this great field—the greatest field—of knowledge and enterprise, AGRICULTURE, in all its branches, of vegetable and animal productions, for the support and comfort of mankind.

And all of them should be written in a spirit and presented in a style to pleasantly arrest the attention and excite the love of children for this noble and most useful avocation of man.

Who will write and prepare these books. In it all, we want something of the spirit and enthusiasm of the following beautiful extracts:

"The love of rural life, the habit of finding enjoyment in familiar things; that susceptibility to nature which keeps the nerve gently thrilled in her homeliest works, and by her commonest sounds, is worth a thousand fortunes of money, or its equivalents.

"Every book which interprets the secret lore of fields and gardens, every essay that brings men nearer to the understanding of the seeming mysteries which every tree whispers, every book murmurs, every weed, even hints, is a contribution to the wealth and happiness of our kind."

Clover and Grass Seeds.

Our genial and jolly friend Col. Hill, of Prince Georges, writes to ask our views, "as to the next best grass seed to clover, for pasture and to renovate land; clover with us is played-out, the land being tired and sick of it; when it does come up the hot sun destroys it," Col. Hill says:

We cheerfully give our views in response to the above; but they are very diverse from his views as above; instead of the "land being sick of the clover," it is the very reverse; the clover is sick of the land, in its present condition, so shallow and impoverished.

Since the clover was not sown last fall, nor on the late snows, let it be sown this spring—this month if possible. Plow the land two or three inches deeper than heretofore; harrow it well, then roll it thoroughly; this process will give a deep, fine, mellow bed for *all* the seed to germinate in. If only clover seed be sown put on 16 pounds to the acre, if red top or timothy be sown with the clover, apply 8 pounds of clover seed, and 8 pounds of the grass seed.

Sow oats or spring rye with the clover and grass seed, at the rate of $1\frac{1}{2}$ bushels of oats, or 1 bushel of rye to the acre, harrowing and rolling well after seeding is completed.

On the first dry, warm days, after the grass and grains are well up and green, sow two bushels of plaster (gypsum) to the acre. Then, soon after the grain is cut—whether green for soiling, or ripe for grain—sow more plaster, at the rate of one or two bushels the acre.

Pursue this course, fairly, and we will guarantee a fine catch of clover and grass, on your land, and that the "hot sun will not destroy it." But, if the clover and grass seeds were sown in the fall, with the winter grain, let it be plastered, all the same, as above directed, this spring and again after harvest of the grain. In either cases other fertilizers will be beneficial, though the plaster should not be omitted, in any case. Clover seed, mixed with the other grasses named above, or with orchard grass seed, may be safely sown in the spring without grain, and a good catch secured, if it be well plastered, 2 bushels the acre, soon as well up; and then lightly top-dressed with manure or compost from the barn-yard, or with well rotted leaf-mold from the forest, or road scrapings.

All of the above directions are applicable and proper, whether the seeding be done broadcast or with a seed and fertilizer drill; but seeding with the drill is more sure and profitable, in the long run. In all cases, go over with the roller after the seed is sown; it settles the seed well.

As to what is "the next best grass seed," to be used, there are various opinions; and we are not so well settled in our own mind, about it, as we are in regard to the management, above stated, about clover; we are not as confident in our own views about "the next best," as we are in regard to the above facts. In several cases, which have come under our experience and observation, *orchard grass* has proved successful and valuable as a pasture grass, for hay, and as a green manure crop to plow under for renovating a worn soil. It is a rank grower, is early, it is hardy, tillers-out well, and makes a heavy, compact turff, which stands sun and winter well, while it is a very acceptable feed to all kinds of stock, either as pasture grass, or as hay, when cut early and well cured without rain or any mildew or smut.

FARM SOLD.—On Saturday last, Mr. Hy. M. Nixdorff, of this city, sold his farm, containing about 198 acres, located about $2\frac{1}{4}$ miles South-west of this city, near the Harper's Ferry Road, to Mr. Samuel Hargett, for the sum \$12,500, or about \$63 per acre.—*Frederick Examiner*.

Clatter Among Stumps.

About the worst thing that can be in a grain field or meadow, is an ugly, huge *stump*; in fact, a stump is a bad feller, anywhere. A stump of a tooth is a severe jewel to the wearer, though it is a delight to the dentist. A stump in the field is death to the plow and cultivator, but its a haven of rest to vermin. A stump speech is the pride of the demagogue, but its a costly presentment to the honest worker who pays the shot.

A stump invokes terribly earnest prayers, sometimes; once, when a boy, we were in the field where an old deacon was plowing; his plow caught in the root of a stump, the team sprang, and away went the plow-beam; and we should hate to say how vehemently he prayed. When a man gets into difficulty, he is in a hard row of stumps; and when he is defeated, thwarted in an undertaking, he finds himself up a stump. Then let us get rid of the stumps; it pays, and can be done more easily than some seem to think. A large stump occupies five or six feet square of land, where we get no hill of corn, or a scythe cut of hay. Besides, working round it annoys man and team, breaks tools, and wastes more time in a year than is required to get it out, to say nothing of the looks of the thing.

Bore a hole, with an inch augur, about one foot from the ground, slanting downward at an angle of about 45 degrees, and half way through the stump; put in half a tumbler full of coarse powder; make a pin that will drive very tightly into the hole after powder; first cutting into the side of it, where the fuse may pass; get blasting fuse; put a piece in the hole down to powder; dampen the pin a little and rub on a little sand; drive the pin in with a sledge hammer, down nearly to powder; set fire to your fuse, and get out of the way, unless you wish to feel as well as see the sport.

The powder will split the stump into two or three sections, pushing them partly out of their bed; then hitch your oxen, with a log chain to each piece and they will haul it out, and out of the way.

This will make a big hole in the ground; fill it up to within a foot of the surface with stones or old rubbish, then put back good soil to level it; plant a couple of hills of corn or potatoes, and you will get double the yield that other equal space will give; or if other grain be sown, the effect will be the same; and the trouble is forever ended, as the pain ceases when the tooth-stump is extracted.

With smaller ones it pays to dig round and cut off the larger roots, then hitch the oxen to the top and they will put it over—and with it the disgrace and torment.

Small Farms and Many Owners.

Other things being equal *home owners* are the most responsible and reliable citizens; and the more home owners there are in a nation the stronger and safer it is.

And a given area of land, owned and worked by ten owners will, generally, be worked better and more profitably than a large tract owned by a single individual.

On these two topics we take sensible extracts from two correspondents in the, *Denton Journal*:

Messrs Editors:—The *small farm talk* among your writers is being tried in a practical way in this neighborhood. Within the past year, quite a number of sales of small places have been made and several dwellings erected. Most of these sales have been to persons heretofore in the habit of renting places by the year. Seeing that they were soon to be pushed to the wall they have wisely set about providing homes of their own.

Among the number of land owners of this class, there are several men of color. They will be thus placed in better condition than if they were entirely dependent upon renting and day labor, to support themselves and families.

There has certainly been a change here since the sales referred to. There can be little doubt of success, and with patience and perseverance I have no doubt many will realize that "Ten Acres are Enough."

M. U. D.

Messrs Editors—The question of the day, aside from the subject of politics, is how shall our agriculture be made more profitable? It cannot be denied that the prosperity of a nation depends upon the developments of its agricultural resources. A people depending alone on its manufactures, or upon commerce alone, has not within itself all the elements essential to wealth and long continued prosperity. There may be seasons of great activity; but there will be corresponding seasons of depression.

Hence it is of the greatest importance to us that our farming should be well and wisely conducted. There should be an effort to grow the greatest amount of grain, grass and fruit upon each acre cultivated, possible in our condition. The farmer who demonstrates the fact, that by careful manuring, thorough culture, &c., he can make as good a support for himself and family upon 50 acres, as he has formerly done on 100 acres by careless system of culture and little attention to his manure heap, is a public benefactor and is entitled to the thanks of his fellow farmers.

Fully impressed with the importance of increasing both the number of farms and the population of our county, instead of driving our land renters out to seek homes elsewhere, I am glad that a number of your correspondents have taken the subject in hand.

L. W.

MELON VS. BEET SUGAR.

The *Sun* has a correspondent, in California, who furnishes an interesting article in regard to Melon and Beet Sugar, from which we make extracts below; but we have been giving, as our readers well know, articles on this subject, in the MARYLAND FARMER, for several years past, as well editorially as from our intelligent correspondent, Gen. Winn, at San Francisco; so that this "new industry" is not unknown to the press; but still we are glad to give our readers all the light on the subject that we can:

"A new industry unknown to the press is in process of inauguration in California which may interest the rural districts of Maryland and elsewhere. It is making sugar, table syrup and table oil from watermelons. Mr. Roe, of San Francisco, seeing that our beet sugaries have not made profit turned attention to watermelons. He found that when beet sugar proved unprofitable in Hungary Herr Hoffman substituted melons, with most gratifying success. His sugary at Zombar is one of the largest and best paying in Europe. Accordingly Dr. Hiller has sent to Hungary to consult with Herr Hoffman, compare climate, and, if satisfied, he was instructed to buy works and import skilled labor. To make double assurance he bought a large sugar factory in full and successful operation, and engaged its best men to come to California and go on just where they left off. In this way, supposing the melons to be all right, there can be no failure."

"Watermelons with white pulp are preferred.—Their agriculture is more than 30 per cent. less costly than beets. They are planted 12 feet apart one way, and the other way 6 feet apart. Before weeds interfere the leaves of the plants cover the ground and kill them. Besides, they make an impenetrable mulching, which keeps the soil moist and prevents baking. Harvesting melons is cheap and cleanly, while uprooting beets is laborious, and the coarse, adhering dirt is removed by hand, while the crown is cut away as unprofitable for sugar.—Beets also need much weeding."

"A melon field needs only one-fourth the plowing. Beets can only be delivered in the root, because the juice turns quickly black and the sugar becomes starch, while melon juice is not affected for several days. Beets are washed and rasped or sliced, while melons, by one cut, deliver their juice over a seed strainer into the vats direct. The melon being free from impurities, which make costly chemistry in beet sugar, is much less expensive."

"Beet syrup is only fit for distillation. The syrup from melons is delicious. The seeds make the finest table oil, and the refuse is good for cattle. Taking account of so many advantages sugar from the melons, though rated at 7 per cent, of the weight of the fruit, instead of 8 allowed for beets, costs less to make. The difference may be set down as 5½ cent for melon sugar to 7 cents a pound for beet sugar. In regard to quality melon sugar is superior. Unless extra care be used best sugar is apt to have an unpleasant buggy flavor."

In Italy, and some parts of Germany and France, the business of making sugar from Water Melons, and oil from the seeds, has been profitably done for some years, and it is reported to be two per cent. more profitable than beet sugar; and the oil-cake made from the seeds—after they are ground and the oil pressed out—is said to be nearly as good feed for stock as flax or cotton seed oil, particularly for young stock.

Many portions of the land, in all the Southern States, are eminently adapted to the raising of water melons; and they can be made to add very considerably to the profits of farming, especially on the light sandy lands.

Clover and Green Manuring.

As we are satisfied that *green manuring* is sure to be a basis and chief operation in renovating the worn-lands of this section of country and of restoring them to a high state of tilth, we shall give our readers in the MARYLAND FARMER all the reliable information that comes within our reach; and as *clover* will likely be the general crop used for that purpose, we shall, from time to time, give readers of the Farmer all the facts and experiences we can on this subject; though we believe that, in many instances, buckwheat, millet, orchard grass and peas, will be more advantageous for that purpose than clover.

Here are two paragraphs from the American Agriculturist on the subject of clover:

TO HULL CLOVE-SEED.—"J. J., Green Co., Wis. Clover seed may be thrashed and hulled in great part without a huller, by the following method.—Take out the concave of a thrashing machine, and replace it with a piece of oak plank in which grooves have been plowed lengthwise with a gouge, chisel, or a grooving-plane. Feed the clover into the machine so as to keep it crowded full, and hang a bag in front of the discharge to keep the chaff from leaving the machine freely. This will cause a great deal of rubbing in the machine, by which most of the seed will be hulled. Clean with the

fan, with a light draft, or toss the chaff with a fork or rake, and rake off the top, keeping the bottom for sowing. Or else thrash and rake off the coarse chaff, and sow the fine chaff, in which all the seed will be found.

SOWING CLOVER SEED ON THE SNOW.—"F. S.," Meramec, Mo. If the ground is in proper condition, it will answer well enough to sow clover seed upon the last snow. But if it is not perfectly prepared, it will be better to wait and harrow the ground as soon as the surface is dry, and then sow the seed while the marks of the harrow-teeth remain. The seed will be covered by the earth settling down into the little furrows.

How to Save Expense of Rent.

There are many persons in all towns and cities—mechanics, clerks, laborers—persons who work for wages, and who pay out large portions of their wages for rents. Now, in most cases, this may mostly be saved; and in other cities where we have lived, in times past, we have known it to be done, in this wise; in the cities of Rochester and Chicago we have known this scheme to work well.

Instead of renting, the occupants would thus be engaged to buy a cheap house and lot, proportioned in value to their wants and wages; they would stipulate to pay, in *monthly instalments*, about the same, or a little more, as they would be required to pay for monthly rents; and do this until the property was paid for; and then the purchaser would receive a deed for the property, and become the independent owner of his own house: and besides, he would have that much to show for what he had before paid for rents, with nothing left to show for it. Of course the purchaser will be careful to buy of a fair, honorable man, and there *are* some such, in all cities.

The moral influence and stimulant is good, in such cases; being in the way of making something and having a home, the buyer will be incited to be economical, to make more earnest efforts to earn and save the money, in order more speedily and surely to pay for his place.

RAIN FALL.—The reports of the Signal Corps show that the amount of Rain Fall, including melted snow, for this region, during the year 1876, was a little over *four feet* on the whole surface; an immense body of water, if flooded on the earth all at once.

A deep, loose, porous soil, will allow this water to settle and support vegetation, before it evaporates or runs off; that's the good of deep, fine plowing.

Farming for North Carolina.

Mr. T. J. W. of Anson Co., N. C., writing about his subscription to the Farmer, adds:

"We have been raising *Cotton*, for the last ten years, to the exclusion of nearly every thing else; the result is, we are growing poorer every year; and, of necessity, we must diversify our productions; so, I may find the articles in your Magazine will aid us and give us the desired information, in our new calling, or rather our new departure." "Now, I think our planters see the necessity of a change, and shall probably induce numbers of them to subscribe for your Farmer."

It is our opinion that our Carolina neighbors, in Anson and other counties, will advance their best interests, by engaging more extensively in grain, fruit and sheep raising, with other stock, growing plenty of roots, millet and clover, for feeding the latter, as well as to fertilize their soils. They will certainly need to plow a few inches deeper than customary, go over with heavy roller to crush the lumps and clods, after harrowing well; sow buckwheat, or clover, or peas, to plow under for green manure; sow orchard grass, or Herdsgrass and Timothy, (*plastering* them all in Spring and Summer) to make turf, pasture and hay. Do all of this carefully and seasonably, not omitting a portion of land to cotton, where that is the natural staple and succeeds well.

Follow these and other directions, in the MARYLAND FARMER, and you will be very sure to succeed we think.

The Agricultural College.

Mr. H. C. Hallowell, (son of Benj. Hallowell, the first president of the College,) delivered the fourth lecture, a very instructive one, before the students and faculty of the Maryland Agricultural College, on Friday evening, the 9th of February, on several agricultural topics, for its general promotion. We are glad to see that the lecturer backed up three very important measures, which the MARYLAND FARMER has been constantly and earnestly advocating; namely; the *study of Agricultural Science*, among the masses; *thorough cultivation* of small areas, rather than larger ones poorly cultivated; and, the *dispensing with fences*. The farming communities can observe and adopt all of these recommendations with great advantage to their prosperity and happiness. More study and less idleness; more culture and less skimming; and fewer fences with more manures, will give full barns and fat cattle.

HORTICULTURE.

Maryland Horticultural Society.

The February exhibition of this Society was held in the Academy of Music, Baltimore, on the afternoon and evening of February the 15th; W. H. Perot, President, and W. B. Sands, Secretary.—There was a large attendance, many of the visitors being ladies. The show of flowers and plants was very fine, and of choice varieties.

Premiums were awarded as follows: best display of plants, \$5. to, the President; best table design of flowers \$5, R. W. L. Raisin; best basket cut flowers, \$5, G. Burger; best 12 camelias, cut, \$5, John Feast; best three cyclamens, W. F. Massey. Honorable mention was made, of Capt. Snow, for orchids; J. Edward Feast, for bletias; and E. Hoen, for azalias. On account of his own illness, and the lameness of his gardner, Ezra Whitman did not, as usual, show his fine collection, of azalias; camelias, carnations, and other kinds.

W. D. Brackenridge gave a short address on herbaceous plants. Capt. Snow, said all such plants should be covered over during winter. It was voted that at the next meeting a decision be made as to the 25 best perennials for general culture. Azalias, ordered as subject for discussion, at the next meeting. The President announced that the American Pomological Society would hold its next biennial session in this city, in September, in connection with the Maryland Horticultural Society; and as there is no room in the city large enough to accommodate the joint meeting, the Executive Committee was instructed to take necessary steps to procure a suitable place for the great Exhibition of the two Societies; adjourned.

COLD SNAP.—For the convenience of the "Oldest Inhabitant," a century hence, we note that, on the 12th of February last, the temperature at this city fell 30° in six hours; at 1 o'clock p. m. it stood at 63°, and at 7 o'clock it had fallen to 33°, the wind shifting from S. W. to N. W.

BURNING STUMPS.—When you have blasted out, dug up, or pulled out with machine, your troublesome stumps, pile them up on plowed land, where fire will not spread, and burn them; then put the ashes on your corn field.

POTOMAC FRUIT GROWERS.

FEBRUARY MEETING.

The Potomac Fruit Growers' Association met at the Board of Trade, on Tuesday, February 6, at noon, J. H. Gray, President, and J. E. Snodgrass, Secretary. The attendance was large.

ELECTION OF OFFICERS, FOR 1877.

The following was the unanimous result of the balloting: President, Chalkey Gillingham, of Virginia; Judson S. Brown and Harriet N. Nute, of the District of Columbia, vice presidents; Nathan W. Pierson, Virginia, treasurer; J. E. Snodgrass, of the District of Columbia, secretary. The executive committee, embraced in the foregoing list, was made up by ballot as follows: Jehu Brainerd, John Saul, P. Hillman Troth, Daniel O. Munson, and Martha D. Lincoln, in addition to the officers of the society.

SOCIAL REUNION.

Mrs. Fowler, Mrs. Lincoln and Dr. Howland were added to the committee previously appointed to make arrangements for the annual reunion of members and friends sympathizing in their endeavors, to take place on the second Tuesday of March, the time the next meeting will be held, instead of on the first Tuesday, which is the regular day.

This pic-nic party will be entertained with varied literary exercises.

Next meeting on the second Tuesday in March, when the public are cordially invited to be present.

EXTERMINATING CATERPILLARS.—A formula introduced in England consists of a mixture of coal dust, common salt and flour of sulphur, to be scattered, just before a rain, over freshly plowed land. To exterminate caterpillars on trees, they may be sprinkled with a solution of one part of sulphide of potassium in 500 parts of water. This, it is said, will kill the insects, and do no harm to the trees.

FLOWER AND VEGETABLE GARDEN—Vick's "Flower and Vegetable Garden," for 1877, is worth twice its price, 50 cents, for the "Glossary," and "Pronouncing Vocabulary" which it contains were there nothing else instructive and beautiful in it. Qr. Is he correct, when he says the prefix *anti* means similar?

HORTICULTURAL SOCIETIES.

Upon the uses of these societies, the veteran grower, PATRICK BARRY, said in a meeting, recently held in the city of Rochester, N. Y., among other timely words, the following:

"We have all need to learn, and there is no better way to do it than to come to these annual reunions where each one contributes his quota of experience and each profits by the success and failure of the others. They are the very best schools for mutual improvement."

"These meetings have also a good moral and social influence. Men engaged in the same pursuit in different parts of the State throw aside for the time business cares and rivalries, and come here to renew friendships and enjoy a holiday. I think it is, in a great sense due to the influence of this Society that there is so little professional jealousy and so much brotherly feeling among the nurseryman and orchardists of Western New York."

"But we are not working for ourselves or Western New York alone, we know that the influence of our Society is felt far beyond the borders of our own State; our proceedings have been considered worthy of publication by other societies and have been quoted extensively in the agricultural and horticultural journals, both at home and in Europe."

And from a number of years of attendance at its meetings we can say very much the same in regard to the Potomac Fruit Growers' Association.

THE LILAC.

In a report on ornamental trees and plants, at a recent meeting of the Western New York Horticultural Society, GEORGE ELLWANGER, gave the following on the *Lilac*:

"Among the hardy, large growing ornamental shrubs, the Lilac justly occupies a prominent place—indeed we consider it second only to the Magnolia as an ornamental flowering shrub."

"It is a universal favorite and fully merits London's eonium, "Beautiful in leaf, and preeminently so when in flower."

"The common purple and white varieties, like the red Paeonia and Snowball, are familiar to all. They may be seen in almost every farmer's garden, regaling the passer-by in their flowering season with their delicious perfume."

"Their swelling buds and pale green leaves are the first of advancing vegetation to proclaim the advance of spring, and are always intimately associated with the return of the genial season."

"The colors and shades of its flowers, in its many varieties, are manifold, and no less in this respect

than in their delicate grace and exquisite fragrance do they merit the esteem of the lovers of floriculture."

"It is adapted to almost any soil and climate. In park or garden, lawn or hedge, it lays claim to distinction for effectiveness and beauty. In city gardens, where there is only limited space, it is one of the cleanest and most satisfactory of shrubs, either as a well-shaped bush or a low tree with neatly balanced head."

"By many the Lilac and other highly fragrant flowering shrubs are considered invigorating and healthy as atmospheric purifiers and dispellers of noxious vapors. I well recollected when the cholera was raging throughout Europe, in, I think, 1830, the *savants* of the city of Stuttgart, where I was then residing, ordered the burning of fragrant herbs in the market-place, to prevent infection. Whether owing to this means or not, the city escaped the dreadful scourge."

More about Pear Blight.

Dr. E. Michenor, in an address before a fruit society, in Pa. said:

"In hybrids there must be a constant antagonism between the discordant elements thus forced into unnatural union. The nutriment furnished through the blood or sap is not congenial to the delicate and sensitive organism which it is designed to nourish. This is manifested by the imperfect reunion, so commonly observed between the ligneous cells of the quince and the pear. The same probably occurs in all hybrids. The blood or sap of the stock does not readily enter and assimilate with the organism of the other. In proof of this, sections of four trees, grown on quince stocks, were presented, which had died from the effect of blight. There was an imperfect union between the kindred woods. They appear to be separated in many places by a film of bark, and are consequently easily broken asunder. Hence dwarfing the pear tree is only another name for feeding with uncongenial food—and is a fit preparation for blight, whether it shall prove to be itself a fungoid growth, or only the foster parent of a fungus. The impurity and deficiency of healthy nutrition—are sufficient to cause mortification and death from climatic changes.

The conduct of the nursery should also be radically changed. Let the young trees be fed and cultivated more in accordance with hygienic principles—in the same manner in which they ought to be when transplanted to the orchard. With these precautions your pear trees might once more rival the endurance of those of the last century.

In conclusion I propound to you the following questions :

1. Is blight proportionally more frequent and more fatal in dwarf trees than in standards?

2. Does it occur more frequently on one side of Pear trees than on the other, and on which side?

3. Is the scale or scab, so common on the trunks and larger branches of the pear trees of this form, an incipient stage of blight, or especially connected with it, and is it more frequent on one side or aspect of the tree, and on which side?

An instance was cited as to the influence of temperature on blight. "The deep snow of 1836 was followed by six weeks of intensely cold weather, yet I noticed that the warmth of the two o'clock sun melted the snow on that side of the young apple trees in my orchard, leaving an open space of half an inch between the bark and snow, extending down near the earth. Thus the warmth of the sun by day, and the intense frost by night, were frequently alternated. The ensuing Summer, I found that about one-half of the trees had a patch of bark killed, varying from two to six inches, always on the two o'clock side, and below the depth of the snow. This led me to examine two other orchards of about the same age, (from seven to ten years,) both of which were found in precisely the same predicament with mine. This was certainly climatic."

Two Choice Grapes.

A writer in the *Maine Farmer*, R. H. Haines, gives the following statement in regard to grapes :

THE BRIGHTON.—This is probably the most popular of all. Its appearance has created quite a furore among lovers of fruit. It is an out-door grape, and is a seedling of the Concord and Diana Hamburg. Its attractive appearance and delicate flavor, are probably due to the valuable properties to be found in the Hamburg. The vines are strong growers, with large, dark green leaves, and can safely be called very productive, as I have seen the Brighton just loaded down with fine large bunches. Ripening quite early, they will be very much appreciated by those who have hitherto felt the want of having a fine early red grape to decorate their tables with. These beautiful red clusters form a very pretty contrast when carefully arranged and intermingled with bunches of white and black grapes upon the fruit dish.

THE WALTER.—This is called the only American Raisin Grape, though possibly some of the wonderful kinds that our friends in California grow to such perfection, may also be of this class. Having home-made raisins will be quite a novelty to many, and we shall expect soon to see our citizens every-

where, feasting upon mince pies and fruit cake to their heart's content. The berries are of good size, of a red color, sweet, and of pleasant flavor. The Walter will prove very acceptable to amateurs, or to others who make their gardens a means for recreation, and who may wish to have some oddities to point out to admiring friends.

GRASS AND CLOVER SEEDS TO THE ACRE.—We have many inquiries as to the quantity of grass seeds to be sown on an acre, for meadow.

An infallible rule cannot be given for all cases. Rich land requires less seed than poor land. Soils well pulverized and prepared require less than lumpy hard soils. Thoroughly rolling and harrowing the land, so as to cover all the seeds completely, makes less seed necessary ; when well put in with a good drill less seed is required ; on rather moist, bottom land less seed is required, than on high and dryer land ; but it is safe to say, there is less danger of getting on too much than too little seed.

As a general thing, the following quantities will be about the right quantity, per acre :

Red Clover, alone,	12 to 16 lbs.
Clover and Red-Top,	8 to 10 lbs. of each.
Clover and Timothy,	7 to 9 " "
Alsike, or Luzern,	10 lbs. of either.
Orchard Grass,	20 to 25 lbs.
Blue Grass,	25 to 30 lbs.
German Millet,	3 to 5 pecks.

A STRANGE PLANT.—A plant, supposed to be new, has been found in Nicaragua, which, if what is said of it is true, is a great vegetable curiosity. It has been named "*Phytolacca Electrica*." It is said to possess very pronounced electromagnetic properties. The hand is sensibly benumbed upon touching the shrub, and the magnetic influence is felt at a distance of seven or eight feet. The magnetic needle is sensibly perturbed, becoming more and more so until it reaches the centre of the shrub, when the disturbance is transformed into a very rapid gyratory movement. The intensity of the phenomenon varies with the hours of the day, and at night it is hardly perceptible. It attains its maximum about 2 P. M. In stormy weather the energy of the action is augmented. No insects or birds have been seen on the shrub.—*Exchange*.

FLOWERS, SHRUBS AND ORNAMENTS.—We have just received, too late for this issue, an interesting article from *Tom Bigby*, on the topic of home ornamentation ; it will appear in our next.

BE IN SEASON.—Now is the time to begin setting out your young nursery trees and shrubbery.

LETTUCE.



In all places, Lettuce is the favorite spring and summer salad. Here is a fine head of *Cos* Lettuce, from Vick's handsome Vegetable and Garden Guide.

It is time now to sow the seed for summer use. This is the most crisp kind grown.

Don't fail to grow plenty of it.



LACE LEAF LETTUCE.—This is another of Vick's sorts of Lettuce; it is a very beautiful plant as seen growing, and is very crisp and sweet in the dish for table use.

ESSAY ON HOUSEKEEPING.—We have been handed the manuscripts of a lengthy, but well written essay, by "Cousin Mahitable," on the subject of "House-keeping and its Accessories." It is the essay which received the prize, given by the Harford County Agricultural Society.

It is full of useful hints and instructions, in minute detail, on Domestic Economy, and embraces a wide range, somewhat out side of house-keeping, giving useful facts for the gardener, orchardist, pigs and poultry keepers, and the dairy.

The essay is too long to publish in one issue of our Magazine, but we shall insert useful sections of it, from month to month, for the benefit of house-keepers, generally.

PREMIUMS FOR BREAD.—Mr. Albertson, the popular proprietor of the "Mansion House," in Baltimore, has authorized us to say that he is ready to place in the hands of the Committee on Awards, of the Maryland Horticultural Society, five dollars to be awarded as follows:

For best loaf wheat bread, made in the family, \$3.00.

For second best loaf of wheat bread, \$2.00.

This is a just idea; the women of the family should certainly be full as well appreciated for making good bread as others are for producing nice bouquets.

Agricultural Education in Europe.

Germany is now taking the lead in agricultural education and investigations. Nearly all the information given out to us by our agricultural chemists comes at second hand from the agricultural schools of Germany. Until we can procure and support our own schools and our own investigators, and chemists can begin independent methods of research for themselves, we must be content to take the imperfect and to some extent inapplicable second-hand information thus gathered up and re-tailed for our instruction.

We greatly need to study agriculture from our own native standpoint, to make experiments upon our soil, under our own climate and with our own productions. It may be supposed that we have facilities in our agricultural colleges and the experimental farms attached to them for as much investigations as we need. This would be a mistake. A school is not a place for original investigation. A professor in an agricultural college has enough and too much to do to give proper attention to a score of students.

To investigate requires the whole time and attention of a perfectly competent person, and he can spare no time to do more than note the results of his labors and make them intelligible to others who must read and study them for themselves.—The proposed experimental stations will furnish opportunities for these original investigations.

But our agricultural colleges are deficient in number, if, indeed, we may say that we have any at all worthy of the name. We can count upon the fingers of one hand all the agricultural colleges that have, so far, given the least excuse for their existence. For more than forty millions of people, the majority of whom depend directly or indirectly upon our agriculture for their support, we are poorly furnished with facilities for agricultural education. In Europe the agricultural schools, both in number and efficiency offer a strong contrast to our poverty.—*N. Y. Times.*

REMEDY FOR THE TOBACCO FLY.—Dr. Sybert, living near Clarksville, Tenn., has found a perfect remedy for the tobacco fly. It is simply to sweep the tobacco bed clear of all bugs or trash, and then put over it a sheet made of thin, cheap domestic, costing five cents a yard. The domestic is put on with a few small stalks to raise it above the plants, and pinned closely at the edges. It admits light, and the plants grow well under it, in perfect security.

Montgomery County Farmers' Society.

In the Advocate we find the following items reported:

SANDY SPRINGS CLUB.—The club raised 300 acres of corn averaging $8\frac{1}{2}$ barrels per acre; 330 acres wheat average yield $23\frac{1}{2}$ bushels; 158 hogs average weight 210 pounds.

ENTERPRISE CLUB.—The club, consisting of sixteen, planted:

370 acres corn average 7.08 barrels per acre.

316 " wheat " 21.3 bushels "

393 " hay " 1.13 tons "

233 hogs average 145 pounds

Nine members reported 12,746 pounds butter.

Died suddenly by dogs nine sheep, on the farm of Roger B. Farquhar.

Annapolis papers please copy.

Early in March is the best time to sow clover seed.

MONTGOMERY CLUB.—This club, also of sixteen members, planted:

405 acres corn average 7 5-9 barrels per acre.

335 " wheat " 19 bushels "

405 " hay " $1\frac{1}{2}$ tons "

38,789 pounds pork.

Seven members made 11,078 pounds butter.—

Three members sold 1200 boxes peaches.

An experiment in plowing under sapling clover and field peas for wheat will be related a year hence.

DAIRYMEN'S CLUB.—This Association, organized a little over a year ago, was reported in flourishing condition, and as likely to be a permanent and valuable institution.

COUNTY GRANGE.—*Resolved*, That the Montgomery County Grange do heartily and cordially endorse the action of the Agricultural Society of the county, in appropriating money for the object stated in the above preamble. [Appropriating \$200 to test fertilizers by analyses.]

OBITUARY.

HON. GEO. W. WILSON.—Senior Editor of the *Marlboro Gazette*, died on the 30th of January last, at his residence, in Upper Marlboro, Prince George County: Md., in the 60th year of his age.

Judge Wilson was one of the oldest as well as one of the most popular and respected members of the Editorial fraternity of Maryland; and we have been informed was president of the Editorial Association of this state, at the time of his decease. He filled many useful and honorable positions during his life time,

IMPORTANT.—A correspondent sends the following important hints, which have heretofore been suggested in the Farmer. All cellars should be well cleaned out, of all rubbish and decayed vegetables, every spring and autumn, at least—oftener is still better:

Keep Clean Cellars.

There is no doubt that unclean cellars—potatoes and other vegetables rotting in them—are the exciting causes of typhoid fever, diphtheria and many of the other ailments of the families of farmers.—Even when no odor is perceptible, the cellars should be cleaned out periodically and thoroughly aired at all times, unless perhaps, in times of the intensely cold deep snows that occasionally we have, even in Maryland.

But when the smell of decay is perceptible in a cellar there is no excuse for one day's delay; it may cost months of painful illness of one or more of the family, or their death.

When a case of typhoid fever occurs, diphtheria or other ailments dependent upon a vitiated system clean out the cellar without delay, and if the water is taken from a well, clean that out also, and if the surface drainage finds its way into it, get your water elsewhere, even at the cost of a great deal of inconvenience; at least, for all the water supply that does not undergo the process of boiling. A

MARYLAND JOCKEY CLUB RACES.—The Spring meeting of the Maryland Jockey Club, is fixed for May 22, 23, 24 and 25, at Pimlico. There will be many of the best horses to contend for the purses, which are large; the Club itself puts up \$10,000 to be run for in the different races. The programme mentions no less than *eighteen races* during the meeting! Owing to continuous attention to the tracks, and the improvements for the comfort of spectators, each year the course has increased its popularity, and the meed of high praise has been awarded to its Executive Committee and its indefatigable Manager and Secretary, Major J. D. Ferguson.

LARGE PEARS.—One day last month, we saw, on exhibition in a store on Baltimore street, the largest Pears we ever saw. They looked to be 5 or 6 inches in diameter and 6 or 7 in length. The man having them in charge told us they were just brought from France; they are named "Medaille de l'Exposition," and "Anna Audusson." He had small trees of the same varieties for sale.

GRAMMAR.—The *Western Farm Journal*, Chicago, tells about the "finest he has ever saw."

GRAIN MOVING.—Since navigation opened, considerable quantities of grain from the Eastern Shore is moving for Baltimore, says the *St. Michael's Comet*.

WOODBURY NEWS.—This handsomely printed weekly has been enlarged, and is the finest looking weekly printed in the county, and deserves handsome support.

NUTS.—Large quantities of filberts and English walnuts (Madera nuts) are sold in our stores; these can be profitably grown in this state and country; we have eaten good filberts raised in New York state; and good English walnuts, raised in District of Columbia and Maryland; in all cases, they were more fresh and delicious than the imported ones bought at the stores.

Thousands, perhaps millions of dollars are annually carried out of our country to pay for these nuts, when they can easily be grown in this country and save that large amount of money at home. Many of our farmers and gardeners might raise them and not interfere with their other operations.

GOING TO TEXAS.—Some of our citizens talk of emigrating to Texas. They will go out on a prospecting tour next month and if they find things satisfactory, and a location to their tastes, they will close up their business here and go out during the summer or fall—so they say.

SPLENDID BEEF.—Mr Geo. Echenhofer purchased this week, a couple of splendid steers from S. F. Shallcross, Esq., which weighed 2800 pounds. He will have the beef from them on exhibition and sale at his store on Main Street this morning and Wednesday, See his advertisement.—*Middletown Trans.*

FLORIDA.—We have received a handsome pamphlet advocating the claims of Florida as a home. It is written by Mr. D. H. Jacques, who is a rather florid writer; and published by C. W. Blew, of Jacksonville, Florida. Like most publications, gotten up as a specialty, by most great landed speculators, Railroad Companies, and the like, it puts the highest and brightest possible coloring in the foreground, leaving the other shades, in the background, or untouched.

VICK'S PREMIUMS.—With his usual wisdom and fine taste, Mr. Vick, the distinguished florist, offers \$80, in cash premiums, for flowers, to each State having a State Agricultural and Horticultural Society which holds annual fairs: \$40 in one premium for the best show of flowers at the state fair; and \$40 in four separate premiums for floral excellence.

In our next we will give the full conditions.

PLEASANT CALL.—Mr. W. J. Gortner, of Prince Georges, gave us a call, last month; and besides paying for the Farmer, he gave us interesting statements of his mode of farming; and promises us results, next fall, which we will give our readers, as he is an advanced and progressive farmer.

CHEESE.—Estimates of the supply both in the interior and at the seaboard continue to be made, and there is abundant corroboration of the theory that the stock back in the country is meagre. The *American Dairyman* estimates that but from 2,000 to 3,000 boxes are unsold in the Western Reserve. Estimates of the stock in the city of New York vary. The amount is placed by a correspondent in another column at 312,000 boxes. The figures of the *American Grocer* to represent this amount are 207,000 boxes; all agree that it is much less than last year.

TO BOIL RICE.—Here is an Indian's recipe for boiling rice.—Wash him well—much wash in cold water, rice flour make him heap stick; water boiled very fast already; shove him in, rice can't burn, water shake him very much; quarter hour boil, make little more; rub one rice in thumb and finger, if he all rub away, him done; put him in colander, water all run away; put cup water on him, put him in pan again; much cover him near fire; then rice already, eat him quick up.

TAX PAYERS.—There are 1895 tax-payers in Montgomery county, numbering in each District as follows: First 284; Second, 378; Third, 332; Fourth, 466; Fifth 435.

We regret to state that Scarlet Fever is raging to an alarming extent in Colesville and vicinity. Several children have died from its effects in the last ten days.—*Montgomery Advocate.*

SEVERAL INQUIRIES.—Mr. J. N. Burket, one of our subscribers, among other inquiries, asked where he can get *Willow (Salix) Cuttings*, for the purpose of hedges; and which are the best sorts. If some one will inform us, through the FARMER, they will oblige him and us.

Mr. B. remarks that—"the grain on my place (in Pr. Georges) looks promising; I am anxious to have as much grass and clover sown on it as is profitable."

[That's right—he hardly can have too much, if well put in and fertilized; turf—sod—is the surest agent to build up exhausted lands.]

THE MARYLAND FARMER.—This long established and well-known monthly, devoted to Agriculture, Horticulture, and Rural Economy, is published by Ezra Whitman, 145 W. Pratt Street, Baltimore, at the moderate sum of \$1.50 per annum. The February number is full of valuable items and suggestions for all persons engaged in rural occupations.—*Episcopal Methodist.*

LADIES DEPARTMENT.



CHATS WITH THE LADIES FOR MARCH.

BY PATUXENT PLANTER.

"The bud is in the bough, and the leaf is in the bud,
And earth's beginning now in her veins to feel the
blood
Which, warmed by summer's sun, in the alembic of
the vine.
From her fount will overrun in a ruddy gush of
wine."

The above lines so truthfully descriptive of *awakening nature* in the first days of early Spring, are from the graceful pen of Horace Smith, a poet whose fame is less than it should be.

The blue-bird and other early feathered harbingers of the aperiënt season has come, and the low-grounds are full of the melody of the black-bird and the woods and hedges resound with the chirping of sweet Robin-red-breast. The wild water-fowl are preparing by forming squadrons and companies for their long flight from their winter quarters, to their accustomed summer haunts where they can rear their families in quiet and comparative security; the grain and grass fields begin to don their livery of green. On the south side of woods and bluffs, and at the foot of hills, or under protective shrubbery of the lawn, or on the sunny-side of the garden fence, or the hedges, where the autumn leaves rested deep during winter, and have been blown aside by stormy March winds, you will find the snow-drop "winter's timid child"—the crocus, which

"Comes before the swallow dares,"

And take the winds of March with beauty, the "violet, historic, poetic and charming little flowers which "tolls its perfume on the passing air," these and many other precocious wild pets of nature. They remind one of the restless little household darlings, who ere the sun gilds the eastern horizon, peep over the coverlets and then raise their sweet, smiling faces above the snowy pillows impatient for the day, as snow-drops for spring-time, peep above the snow-billows.

On a sunny yet cold day, on finding these tiny waifs, one naturally exclaims with the poet.

"Flowers of the wild wood! your home is there,
'Mid all that's fragrant, all that is fair;
Where the wood-mouse makes his home in the
earth,

Where the gnat and butterfly have their birth,

* * * * *

Sweet are the memories that ye bring
Of the pleasant leafy woods of spring;
Of the wild bee, so gladly humming,
Joyous that earth's young flowers are coming."

These are the tokens which nature gives to the florist and every cultivator of flowers, to begin out door work in the garden, or on that part of the lawn devoted to shrubs and flowers.

Prepare the ground for plants and seeds by deep spading and manuring; with the rake, reduce to a tilth like mould. You will be ready, then, to sow seeds of annuals &c., and set out plants and bulbs as the time for such work arrives, but be not too anxious and sow or plant before it is perfectly safe to do so. The reason for having the beds thus early prepared, is to let the manure intermix and incorporate well with the soil before it comes in contact with the delicate tendrils of the plants.

Now is a good time to make border or bed edgings of box or tall growing strawberry plants, such as the Alpine Strawberry that does not send out runners, but is a pretty and useful edging for beds. It is a good time for sowing ornamental grass seeds; but if it turns cold, cover with matting, on which put an old carpet or damp straw or long manure &c., to keep the ground from all touch of frost.

Prepare all the alleys and walks you want Lay them off, and dig them out as ditches 8 or 10 inches deep, taking away the earth entirely, fill the balance with gravel and some sand. Mr. P. Henderson says, in his admirable book on "Gardening for Pleasure," that in foot-walks, he has found that three or four inches of gravel mixed with one-fourth its bulk of cement to "bind," when watered and well rolled, makes an excellent smooth walk, and on which, because of its hardness, there is no trouble with weeds.

Firm, solid walks made in the manner described, or with coal ashes and cinders, or pounded shells, well rolled or beaten with a hammer or maul, such as used in firming the cobble stone streets of cities, are of much value, enabling ladies and children to exercise out of doors when otherwise they would get wet feet. They pay in this way conducing to health through out-door exercise. Where such materials are not cheaply had, a good and cheap walk can be made of common

planks, nailed to cross ties three feet apart, and say only two feet long, three feet wide for the path would be better. A path 100 yards long would only require 1000 feet of cullings worth \$20.00 and what a blessing to invalids or such as require a "constitutional" every day that is dry over head, but debarred so often in the country, because it is too wet under foot for such health-giving exercise. Such a dry walk among the flower beds of 100 yards, gone over seventeen times would be a mile! and that mile might be the saving to one individual alone of a Doctor's bill of a \$100. Besides what a comfort for all the younger portion, who otherwise would be housed and deprived of the invigorating air. The cost of dressing one evenescent Christmas tree, would pay for such a walk that would last for years, and be used, and its value acknowledged daily. It is remarkable that thoughtful parents do not have drier and better foot paths to their dairies, poultry and other out-houses. In visiting them often as should be done, why should the tender females with light shoes, be made to go through mud and slush when it is so easy to give them a fine hard path for their delicate feet to tread upon when in the performance of duties that lead to so much comfort of their stout, robust friends whose feet are encased in great heavy water-proof boots. Men forget these delicate attentions to uncomplaining wives and daughters, therefore the latter should "strike" for good roads, and furnish neither milk, butter nor eggs, until they get them. Then you would see after while, not McAdamized, but Concrete or plank paths in all directions. The noble lords would soon find a way to "mend their ways," on the "double quick." Just here let me say, it is another abominable nuisance to have a dairy half a mile from the house with wet weeds two feet high on each side of a one foot wide path to travel to get to it in summer and wonder that the "dear girl has *chills* when so active as to be up before sunrise to see to the dairy." In winter it is as bad, the cows are milked a quarter of a mile from the house in the cold barn yard, half the time the milk is frozen when it gets back to be strained in a, perhaps, smoky kitchen.

This is truly dairying under adverse circumstances, and yet the surly lord often says, "your butter is not like that of Mrs. A. or B. The milk is not as rich, or nice tasted, how is it?"

The poor wife or daughter does not know, or if she does, declines to wound (?) the *good* man's sensitiveness by saying, Mrs. A. or B's husbands or fathers provide warm, nice shelters for their cows, feed them high and have them convenient, and the

warm milk comes into a winter dairy, fitted with proper heating apparatus, and the heat regulated by a thermometer, so that there is perpetual summer heat of sixty degrees, and more, as required. They can make winter butter, and get \$1.00 per pound for it, which they say pays, as do most "gilt edged" things pay in the long run. We cannot make "bricks without straw." Milk will be smoky if kept in a kitchen. White butter like lard and chalk, will be, if it is made of milk, heated to make the cream rise, over a kitchen stove that is boiling clothes on top, and meat beside the milk can and bread baking in the inside.

If you want a delight and a profitable pleasure, get the Patent right of Wilkinson's dairy, that by a simple philosophical arrangement, without any fire, keeps an even temperature of heat for milk of from 60° to 65°—right heat for milk and butter making—winter and summer, the coldest as well as the hottest days of the year. It will save its cost in a year, with a dairy of ten cows, well attended to and save also the cost of a fine ice house attached. The secret is the application of air heated in winter by the underground heat, and in summer by the air charged flues passing by the ice. Ladies talk to the "head men, *the bosses*."

New Year Notes.

Though unsettled political questions are still doubtful problems, I have no doubt, but this is really the New Year. From a pleasant dream I suddenly awoke exclaiming, as I lighted the lamp, "Ben Butler is tearing the stable all to pieces;" and a drowsy head lifted from the opposite pillow, listened to the racket. I drew my watch from under my pillow, and behold it was 12 o'clock; just the hinge on which the old and new years balanced for a moment's time.

As the old year was faltering out its farewell, a burst of artillery greeted the *new*, and with Alexandria on one side, and Washington on the other, I heard the New Year when it came, and "Ben Butler," the sedate colt, had nothing to do with the racket.

If guns proclaimed the New Year's advent, the swift falling snow gave it a silent reception long to be remembered. "God must be pounding awful hard up there to make the snow come down so fast," one little boy exclaimed, as he watched the flakes; and if there was any doubt about his theory, there was plenty of evidence that God was banking up trees, shrubs and flowers in a most scientific manner. The strawberry plants are snugly tucked up in their warm beds. When the snow melts they will wake up bright and fresh.

Grape vines and asparagus, vegetables and winter grain have not suffered from the biting chill of change in the temperature since the snow came. If the mice here, make such a havoc among fruit trees as they do at the North, farmers will need to stamp the snow about their fruit trees, or entirely remove it.

At present, farmers are doing little except drawing fertilizing materials from the city. The roads are badly cut up, alternate freezing and thawing having sharp ridges that throw vehicles about without much ceremony.

The Oxford Grange of Maryland, keeps the even tenor of its ways. It is many months since we have been able to attend its meetings, though thoroughly in sympathy with this organization that elevates the farmer, cultivates, stimulates and develops the rather drowsy faculties of some farmers.

I read, with much interest, the discussions of domestic questions among the lady members of various granges. Every subject pertaining to household matters, is being systematically and ably treated by the wives and daughters of our farmers. At no former time, has there been such significant signs of better days.

There are other subjects of interest, closely allied to the welfare of this great agricultural organization, beside making large crops; raising herds of swine, and discussing some fit theory, the year round. Household economy, neatness and judicious management must make the basis of success, when waste and carelessness are not allowed to scatter more than the cautious farmer can accumulate.

The generous acknowledgment of this order to woman's prerogative to educate and elevate argues well for the prosperity of the farmer.

While the question of "Franchise for the Woman" is agitating the country, the wives and daughters of our farmers are wielding untold power in the social status of those who are the bone and sinew of our country's prosperity. May they not tolerate a single practice that will demoralize or injure our sons and daughters.

Among the wide-awake organizations, the Potomac Fruit Growers, of Washington, come in for a share of our admiration. One gets so many new ideas; they do not mind the hobby-riders who always preach from the same text. The fact is, the world goes at such pell-mell speed there isn't time to set a long time on the egg of theory; or, when hatched, pet the poor weak birdling too long, or speculate on its possible greatness, for new developments will often solve what hobbyists have worried over for years. One will seldom find more talent in an organization of farmers, than in this P. F. G's Association. For logic, elegance and oratory, it ranks high. Men of note, and women of culture are largely represented.

BESSIE BUSH.

Washington Jan. 14, 1877.

THE FIRESIDE.

Dear Farmer:—Two years have passed away since my last letter was written; the silence had almost become sacred, but to-night I will break the chain that has bound me,

"Therefore, I hope, as no unwelcome guest,
At your warm fireside, when the lamps are lighted,
To have my place reserved among the rest,
Nor stand, as one unsought or uninvited."

The great progress made by our country during the past hundred years, seemingly leaves us no room to envy our centennial ancestors the few comforts they enjoyed.

Then, they crept across the seas in small vessels, at the mercy of every "stormy wind and swelling tide," to seek a peaceful home in these western wilds. Now, the steamers of a thousands tons, dash over this "highway of nations," in defiance of the fiercest tempest, and strongest current.

Then, the hum of wheels and clash of looms, were the only fireside music; now, they have given place to pianos and guitars; millions of spindles are at work to clothe the world. Then, they quenched their thirst in what seemed to be the most simple, and innocent of substances; now, science has taught us, that the strength of a hundred giants lurks in that little cup of water.

Then, the wonders of the railway had not entered a dreamer's brain, nor was any one presumptuous enough to think of turning the lightning of heaven into a pen, that human hands could direct; then, a log house with its huge open fireplace was considered a great comfort; now, their pampered descendants shiver in their luxurious homes, all heated from attic to cellar.

To-night, as I watch a bright wood fire blaze in the old fashioned chimney with bright irons, and glowing hearth, and myriad of sparks chasing each other in wild frolic, every nook and corner of the room lighted by its ruddy glow, I feel sure our sturdy forefathers would not willingly have exchanged their bright wood fires, for the cheerless heating, inventions of these modern days.

"Ere the evening lamps are lighted,
And like phantoms grim and tall
Shadows from the fitful fire light
Dance upon the parlor wall."

The open fire does not kindle the imagination so much as it awakens the memory; one sees the past so plainly in its crumbling embers and ashy grayness; we sit dreaming, vaguely conscious of the brightness around us, only weaving it into our thoughts and making it a portion of the reverie into which we fall, dreaming of blue skies, and golden sunsets, green woods and bright happy faces, "and all the phantasmagoria of romance, that has been called up by the hour; making

us forget, for a while, the restless waiting, or dismal retrospect which makes the hardest burden of our lives."

"Memory holds in her treasured cells many a gem of rich and rare beauty." Many a scene of joy and sorrow comes plainly before one's mind, some sparkling with the rainbow-hues of childhood; some dimmed by tears of bitter grief. The pictures are beautiful upon my shadowed walls to-night, and only an artist's hand is needed to transfer them to canvas, to make them, "a thing of beauty and a joy forever." But, alas! the artist is not here, and like Macbeth's ghost, "they come like shadows, so depart."

Your correspondent trusts to your usual indulgence; she has run off the track entirely, writing of firelight pictures for staid practical, farmers, but in the hearts of some of them, "Dear memories walk to and fro, weaving garlands of immortells—singing sweet tunes of days and years, that will never die." To others, I know there is no picture so beautiful, as that on the face of a *dollar*; to the first, I dedicate my letter; the latter, can read the advertisements; however, I will try next time to remember the text—Agriculture, Horticulture and Rural Economy. WICOMICO.

THE MARYLAND FARMER.—This favorite agricultural magazine, for Feb'y, has come to hand. As usual, it is filled with interesting and instructive articles on the science of farming. Besides many original articles of rare worth, it contains many carefully chosen selections from other first-class journals and a large amount of correspondence both from Maryland and Virginia farmers. It is a valuable magazine and almost any number will contain articles conveying information that will be worth the price of the journal for a year.—*Middletown, (Del.), Transcript.*

"WICOMICO."—The readers of our Magazine, particularly the older ones, will be pleased to find the pleasing words of this sprightly correspondent again in our columns, after a long interval.

The W. & O. R. R.—President McKenzie, of the W. & O. R. R. in his report to the stockholders, says, the receipts for the last fiscal were \$101,680.66, and the expenses \$73,167.21, leaving a net gain of 38,472.45, an increase of \$11,452.01 over the net gain for the preceding year. The outstanding debt of the company has been reduced during the year \$23,814.46. The President further states:

"We have paid during the year last past on construction west of Hamilton \$5,472.72.—*Sentinel.*

WIND MILLS.—These are useful machines on farms; there are various styles and patents, all having partial friends; the Stover Wind Engine, being a favorite with many. So the Halliday, and the Eclipse.

We have had inquiries, as to the cost, power, &c. We have been informed that a wind mill, with pump, hose, nosle, and everything all complete, can be obtained at from \$200 to \$250, with capacity in ordinary winds to raise four to five thousand barrels of water during the month.

FARMING WITH GREEN MANURES.—We have received a pamphlet containing much information on this very important subject, prepared by Dr. Harlan, of Delaware.

For years past the MARYLAND FARMER has earnestly advocated this system; and more recently has made it a specialty for the speedy, easy and cheap means of restoring the worn lands of the country; and we are glad to be backed up in the undertaking by other writers.

FOR DAIRYMEN.—The following from the *Herald*, is encouraging to Butter Makers:

The statement of receipts and exports of Butter for the last week and the corresponding week last year, is as follows:

	Receipts.	Exports.	Gold.	Cable.	Price
Jan. 8, 1876	8,894	8,769	113	56½	13½
Jan. 6, 1877	6,859	9,808	107½	68	15

BUTTER.—Trade continues dull with no change in quotations. The belief is general that large quantities are held in the country.

Catalogues & Trade Lists, Received.

JOHN SAUL, Washington, field and garden seeds.

E. WHITMAN & SONS, Baltimore, seeds, fertilizers and implements.

MASSACHUSETTS HORT. SOCIETY—Schedule of prizes and special premiums, for 1877.

D. M. FERRY, Detroit, Michigan an elegant and instructive seed annual.

E. WYMAN, jr., Illinois, seed and bulb catalogue.

G. O. BROWN, pure bred poultry, pigeons &c., Brooklandville, Md.

E. P. ROE, New York, list of small fruits.

G. B. WEEKS, New York, Railroad pitching apparatus.

NANZ, NEUNER & Co., Kentucky, Plants, seeds and flowers.

G. W. STONER, Nursery of rare fruits and shrubs.

BURLEIGH & BROTHERS, Conn., seeds and plants.

JOHN WILEY & SONS, New York City; New South Wales, its railroads, colonies, &c.

CLARKE'S lock company; Maryland; combination locks, &c.

WM. PARRY, Pomona Nursery, Cinnaminson, N. J price list.

SAMUEL KINSEY, Dayton, Ohio, fruit farm and nursery.

A. HANCE & SON, Red Bank, N. J., nursery and floral stock. [Will Mr. Hance tell us what is *Abres*?

JOHN SAUL, Washington, D. C., Catalogue of choice and new Roses.

THE MARYLAND FARMER.

BALTIMORE MARKETS--March 1.

This Market Report is carefully made up every month, and farmers may rely upon its correctness.

Cotton.—The demand is good; prices, 12 @ 13 cts.

Bark.—The market steady and unchanged. We quote No. 1 at \$25; No. 2 at \$12a20 per ton, free on board.

Beans and Peas.—The market is dull and easier.

We quote—

New York medium choice.....	\$2 00a2 25
New York Prime.....	\$2 00a2 50
Country Beans.....	1 00a1 40

Beeswax.—Receipts light, and prices steady; in fair demand. We quote at 20a30 cents.

Broom Corn.—The market; prices lower. We quote good to choice medium green. 5½a7 cents; common red tipped, 6 cents per pound.

Butter.—

	Ex. Fine.	Choice.	Prime.
New York State.....	18a20	28a29	30a35
North Western Roll.....	18a19	25a27	20a23
Western Reserve do.....	25a72	21a22	18a20
Western packed.....	23a24	20a22	18a20
Near by Receipts.....	28a30	19a23	17a22

Cheese.—

New York State Choice.....	14	a16
do. do. Good to prime.....	12	a13
Western Fine.....	14	a15
do. Good to prime.....	11	a13

Dried Fruits.—DOMESTIC—

Apples, sliced.....	8	a10
do. quarters.....	7	a9
Peaches, peeled.....	12	a16
do. unpeeled quarters.....	8	a10
do. halves.....	8	a10

Feathers.—We quote 60 cents for Western Live Geese, 50a55 cents for good do., and 25a45 cents for common to fair per lb.

GRAINS.

CORN.

Southern White.....	52a56
do. Yellow.....	53a57

WHEAT.

Western No. 1 Amber.....	\$1 46	a1 50
do. No. 2 do.....	1 29	a 30
do. Mixed do.....	a	
do. No. 1 Red.....	1 45	a1 50
do. No. 2 do.....	95	a1 15
Pennsylvania Red.....	1 50	a1 56
Maryland Red.....	1 55	a1 56
do. Amber.....	1 50	a1 53
do. White.....	1 50	a1 56

OATS.

Southern good to prime.....	36a41
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RYE.

Good to prime.....	70a72
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Hay and Straw.—

Hay—Cecil Co. Timothy.....	\$18 00a19 00
do. Penn. and New York.....	16 00a18 00
do. Mixed.....	13 00a14 00
do. Clover.....	13 00a14 00
Straw—Wheat.....	10 00a11 00
do. Oat.....	12 00a13 00
do. Rye.....	16 00a17 00

Hides.—Market fair; quotations as follows: Association Steers, selected middle and overweights, 9a11 cents; Cows and light Steers, 10 cents.

Mill Feed.—

Western Bran, per ton.....	\$14 00a16 00
do. Shipstuff, per ton.....	13 00a14 00
Onions.—Eastern \$1.75a2.25 for round lots; Western \$1.25a2.00 per bbl.	

Potatoes.—

Early Rose, per bushel.....	a
do. per bbl.....	\$3 50a4 00
Peerless, per bus.....	1 30a1 50
do. per bbl.....	3 50a4 00
Peach Blow, per bus.....	1 25a1 50
do. per bbl.....	3 00a3 50
Sweet Potatoes per bbl.....	3 50a1 90

Eggs—

Fresh Western.....	13a15
Near by receipts.....	14a16
Pickled.....	a
Fresh Southern.....	11a12

Poultry and Game—

Live Turkeys, undrawn.....	15 a20
Chickens per dozen.....	2.00a4.00
Ducks.....	1.00a5.50
Geese.....	8 a10

(Drawn 1a3 cents higher, as to quality.)

LIVE STOCK.

BEEF CATTLE.

That rated first quality.....	4 a6 cents
Medium or fair quality.....	3½a5 do.
Most sales are from.....	3¾a5½ do.

Hogs.—\$9 a10, latter for a few extra heavy Hogs.

Sheep.—We quote at 4¾a 7½ cents per lb., gross.

Seeds.—(lover scarce and in demand.)

Clover Alsike.....	3 b 60c
do Lucerne best.....	60c
do Red, Choice.....	18a17
do White.....	60c
Flaxseed.....	3 bush. 1.30a1.40
Grass Red Top.....	3 bush. 1.00a1.50
do Orchard.....	2.50a3.25
do Italian Rye.....	3.50
do Hungarian.....	1.50a1.75
do Timothy 45 lb.....	2.25a2.50
do Kentucky Blue.....	2.25a2.50
do Extra Clean.....	2.50a4.00
do Fine mixed for lawns.....	4.00a5.00

Tobacco.—LEAF—

Maryland—Frosted.....	\$3 00a 4 00
do. sound common.....	4 00a7 50
do. good do.....	7 00a7 50
do. middling.....	9 00a12 00
do. good to fine red.....	15 00a20 00
do. fancy.....	12 00a17 00
do. upper country.....	7 50a25 00
do. ground leaves, new.....	2 00a 9 00
Virginia—common and good lugs.....	8 50a10 50
do. common to medium leaf.....	9 00a13 00
do. fair to good.....	13 00a16 00
do. selections.....	6 00a20 00
do. stems, common to fine.....	4 00a 7 00

Wool.—For Tub-washed, 35a40 cents; unwashed. 25a30 cents per lb.

Miscellaneous Produce—

Peas, black eye, per bus.....	1 10 a1 20
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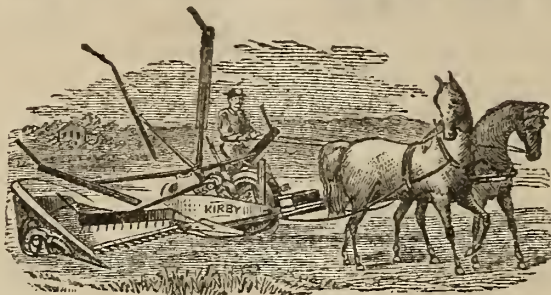
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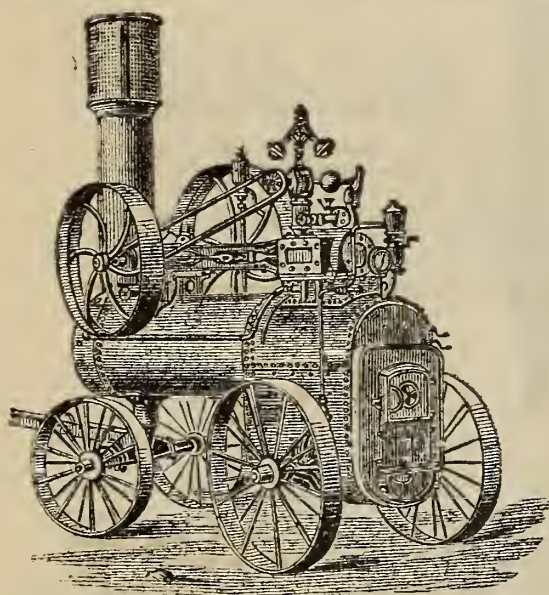
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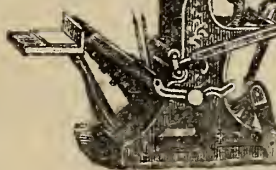
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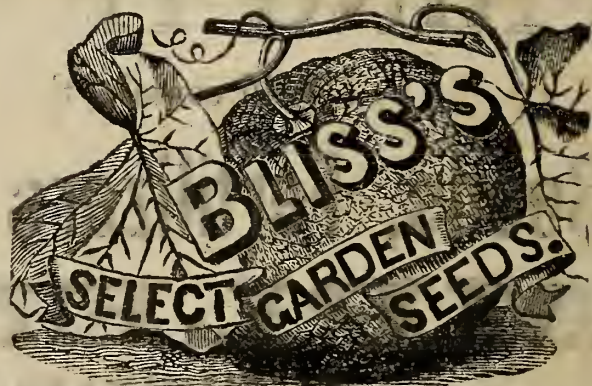
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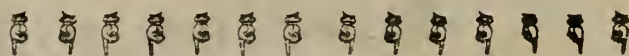
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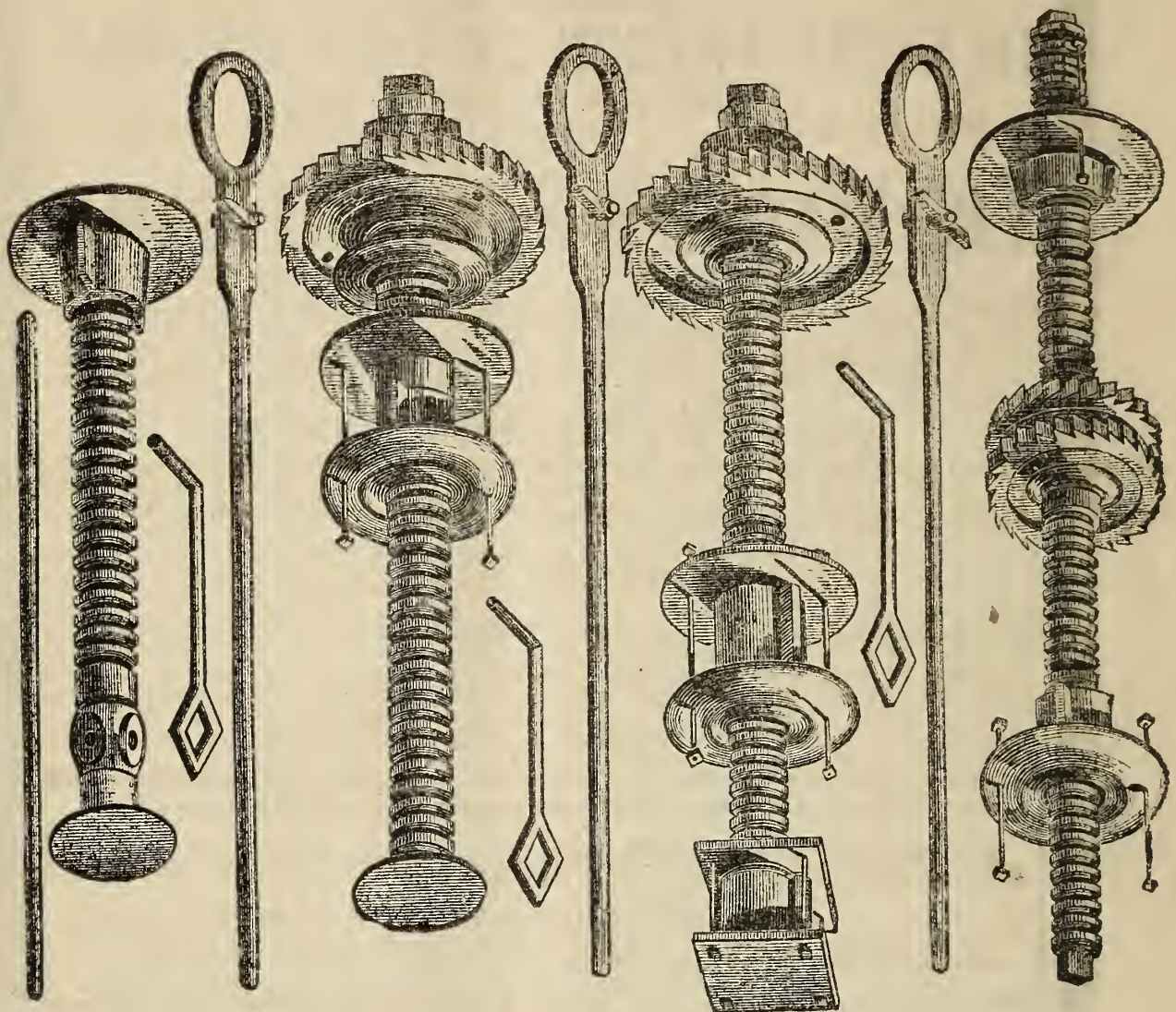
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TREBLE SILVER-PLATED WARE OF NEW DESIGNS,

TABLE CUTLERY, &c., &c.

Our Silverware, made on the premises, and of the Finest Standard Silver, all of which we offer at the lowest prices, at

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No. 135 W. Baltimore St., near Calvert St., Baltimore.

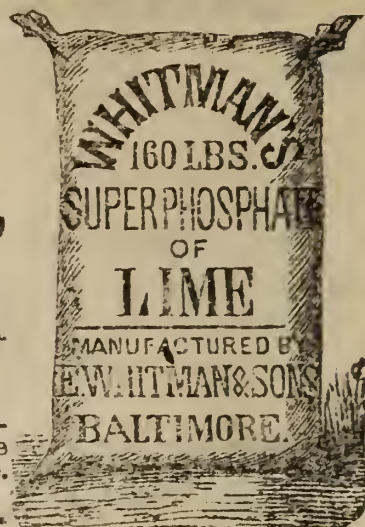
PURE FERTILIZERS.

**WHITMAN'S
SUPER-PHOSPHATE OF LIME,**
Manufactured only by E. WHITMAN & SONS,
IS THE
MOST RELIABLE PHOSPHATE IN THE MARKET.

Look at the Analysis, and compare it with other Phosphates in the Market.
SOLUBLE BONE PHOSPHATE—25 to 30 per cent.
AMMONIA, — 2 to 2 1-2 "
POt ASH, — 21-2 "

Composed entirely of Pure Dissolved Bone Ash, Dried Blood and Animal Matter, and Potash Salts. No mineral phosphates used. Made of the highest grade materials known. There can be no better phosphate made.

Price \$45 Per Ton, in Sacks, of 160 pounds each.



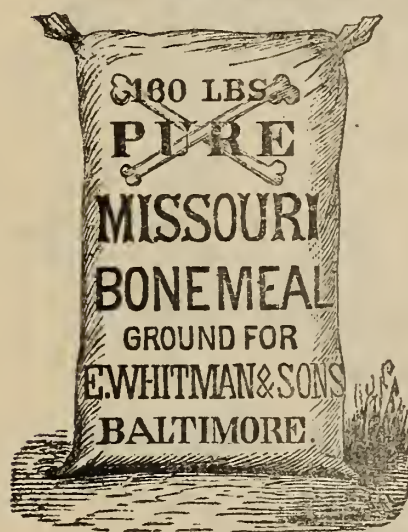
MISSOURI BONE MEAL.

Its Superior an Impossibility.

Analysis : Ammonia..... 4.38
Bone Phosphate of Lime.....49.51

Which is the highest analysis yielded by pure bone. The largest particles are smaller than timothy seed.

Price \$40 Per Ton, in Sacks of 160 lbs. each.



CAUTION!

As some parties are offering as Missouri Bone Meal other than the genuine article, we caution all persons that none is genuine unless the bags are branded as shown in the accompanying cut. Our Trade Mark is copyrighted, and we take the entire production of the Mill, and all infringements upon our copyright will be prosecuted to the full extent of the law. This article is perfectly pure, and has made a reputation for excellence never equaled by any Bone offered in this market. We do not claim that Bones ground in Missouri are any better than others, but we do claim that the Bone ground by our Mill is perfectly pure, and in unusually fine condition. "Missouri Bone Meal" is a name that we gave to designate this particular article; and to keep other dealers from palming off their goods upon those desiring the genuine Missouri Bone Meal, we have had our Trade Mark copyrighted.

Whitman's Potato Phosphate.

We have made for several years a Potato Fertilizer, upon the principle that the soil should be fertilized with such plant food as the plants assimilate for their nourishment and growth. Potatoes, Turnips and all root crops, contain very large quantities of potash. For instance: An acre of Wheat takes out of the soil 35 lbs. Potash; whilst an acre of Potatoes takes out 179 lbs. We have sold a large quantity of this fertilizer, and it always has produced the most perfect satisfaction, and we recommend it for Potatoes and all root crops as being the best fertilizer known.

PRICE \$45 PER 2,000 POUNDS,
In New Sacks of 160 lbs. each.



NEW JERSEY GROUND BONE.

Peruvian Guano, South Carolina Bone (fine ground or dissolved,) Plaster, Sulphuric Acid, Potash, Sulphate of Soda, Nitrate of Soda, and all kinds of Fertilizer materials always on hand and for sale at the lowest market prices.

E. WHITMAN & SONS,

145 & 147 W. PRATT ST., Baltimore, Md.

IMPORTANT TO FARMERS!

TOBACCO:

—OUR—

PIEDMONT GUANO

For Tobacco, is unequalled for the GROWTH and MATURITY of
TOBACCO.

COTTON.

Our "Piedmont" for Cotton, wherever used, has given VERY PROFITABLE RETURNS.

Corn, Oats, and Spring Crops:

Our P. G. Am. Sup. Phos. is highly recommended as a No. 1 FERTILIZER for CORN, OATS and SPRING CROPS.

We pledge ourselves to keep ALL BRANDS up to the HIGHEST STANDARD.

For particulars and circulars, address

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Sunbury,
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Coals.

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BALTIMORE.

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Retort and Fire-Brick Works,

GEORGE C. HICKS & CO.

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VITRIFIED STEAM-PRESSED

Drain and Sewer Pipe, Stove Lining, &c.

Manufactory, Locust Point, Baltimore. Office, 4 S. Holliday St.

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Successors to W. ATLEE BURPEE,
IMPORTERS, BREEDERS, AND SHIPPERS OF

FINE STOCK,

CHOICE Thoroughbred ENGLISH, YORKSHIRE, BERKSHIRE, and ESSEX PIGS of the best importations, with full pedigree; also, POLAND-CHINAS, and the celebrated CHESTER WHITE SWINE. Pigs of all ages, and sows in pig at low prices. SOUTHDOWN and COTSWOLD SHEEP and LAMBS at reasonable prices. ALDERNEY, AYRSHIRE AND SHORT-HORN CATTLE. HIGH CLASS LAND AND WATER FOWLS of all choice varieties. Our poultry are imported and high prize birds of rare merit, and are bred on separate farms. FANCY PIGEONS AND THOROUGHbred DOGS. NEW DESCRIPTIVE CIRCULAR JUST OUT.

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Also, Wholesale and Retail Dealers in
Field, Garden and Flower Seeds, Agricultural Implements and Fertilizers.

ONLY STRICTLY FRESH AND RELIABLE SEEDS SOLD.

6 Descriptive and Price Circulars mailed free. 6 Sample Packets Field Seeds for two 3 ct. stamps.
Call or address

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SEWING MACHINES, FIRE ARMS, TYPE-WRITERS, AGRICULTURAL IMPLEMENTS.

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is read by everybody in the NORTH, EAST and WEST, interested in Florida. There is no better medium for advertising Real Estate for sale or rent in the South.

Advertising rates, very low. Subscription, \$2.00 per annum, single copies 10 cts.

With an immense map, fine photographic views, of Florida scenery, and a complete history of "The land of Flowers;" the number for November 1, has (as the New York Daily GRAPHIC observes), "placed Florida 100 years ahead."

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Gives full information on all kinds of Farm-work, Drainage, Fertilizers, Rotation of Crops and Farm-Stock. Includes a most valuable and practical treatise on House-building, and book of Legal forms and Laws for farmers. *The most valuable farmer's book ever published.* For full description and terms, address

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Adapted to all Sections of the Country; a Plain Practical eight page paper: treats on General Farming and Gardening, the Household Fruits, Flowers, Greenhouse, Winter and Indoor Gardening: Tells when and how to plant: Hints for the month, &c. Ladies Department, etc. Only 50 cents per year.

Sample copies free. Address,

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Liberal cash TERMS to Agents, also a cash premium for the largest list of Subscribers.

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ANCIENT, MIDDLE-AGES AND MODERN.

The great interest in all nations and in our own thrilling history of 100 years, make this book sell faster than any other. 3 books in one. Beautifully illustrated. Low price, quick sales, extra terms.

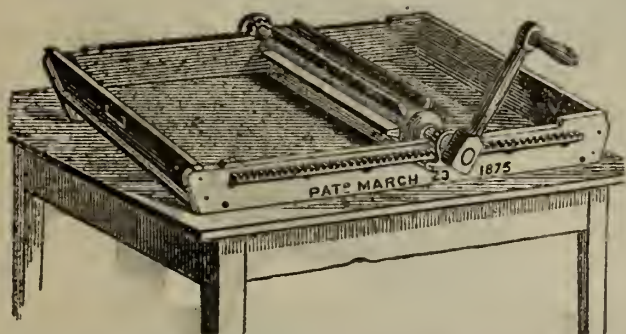
Address J. C. McCURDY & CO., Philadelphia, Pa.

UNITED STATES Purchasing Agency,

32 N. 5th Street, Philadelphia, Pa.

Merchandise and Goods of every description bought at Lowest Cash Prices, and promptly forwarded as directed. Commissions only 5 per cent. on sums of \$2 and over; on sums under \$2, Ten Cents is charged on each purchase. Send for our circular of references, &c., before ordering. Our arrangements with business houses enable us to buy at much less than regular rates.

Write to us at once.



Butter Worker

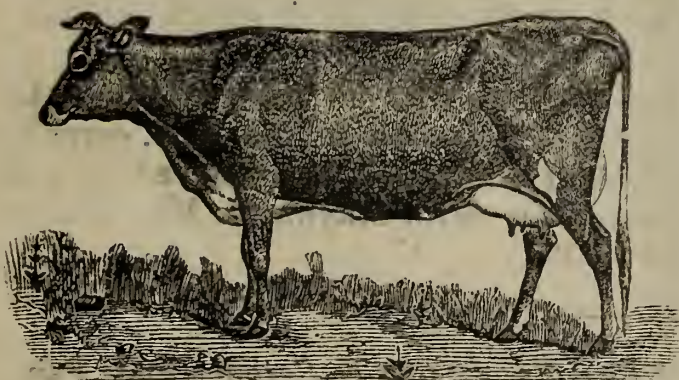
The Most Effective, Simple and Convenient
yet Invented.

Works 30 lbs in less than Five Minutes.

Thoroughly working out the buttermilk and mixing
in the salt. AGENTS WANTED. Send for Circular.

Address, **A. H. REID.**

1621 Market Street, Philadelphia, Pa.



FAVORITE OF THE ELMS.

[1656]
15¾ lbs Butter in 7 Days.

JERSEY CATTLE,

HERD REGISTERED.

Butter Qualities and Fancy Colors

SPECIALTIES.

BERKSHIRES

OF
Most Noted Families.

SHEPHERD PUP,

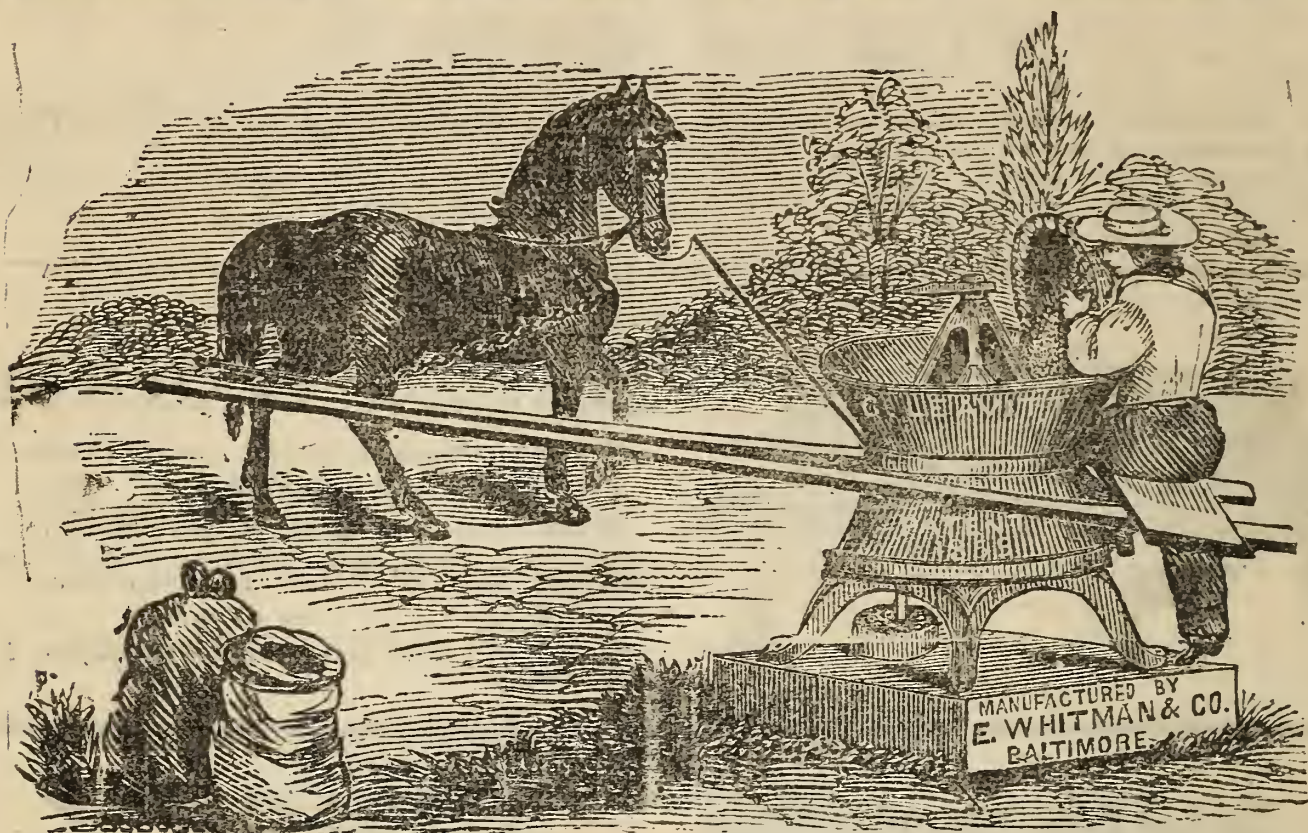
Imported or from Imported Stock.

WILLIAM S. TAYLOR,

THE ELMS STOCK FARM,

Burlington, New Jersey.

"YOUNG AMERICA" CORN AND COB MILL.



The Young America Corn and Cob Mill, which so far surpasses all others, has been improved and made stronger than ever, and is now in the field, carrying everything before it. We annex a list of the Premiums it has received over the Double Cylinder, Little Giant, Magic Mill, Star Mill, Maynard's Mill, and all others that have come into competition with it.

First Premium at New York State Fair.
" " " Ohio
" " " Michigan,

First Premium at N. Carolina State Fair.
" " " Nashville, Tenn., Fair.
" " " Ten County Fairs in Inda

PRICE \$50.

TRIAL OF CORN AND COB MILLS AT THE NORTH CAROLINA STATE FAIR.

The following Table shows the Time occupied by each of the Mills on Exhibition in Grinding half a bushel of Corn and Cobs.

YOUNG AMERICA,	2 minutes and 40 seconds.
LITTLE GIANT,	4 " 45 "
MAGIC MILL,	6 "
SINCLAIR & CO.'S MILLS,	2 trials, average time, 6 minutes, 58 seconds.

E. WHITMAN & SONS,

143 and 147 Pratt Street, Baltimore, Md.

THE MARYLAND FARMER.

ALEXANDRIA, VA., NOVEMBER 20th, 1876.

E. Whitman & Sons, Baltimore, Md.

Gents.—Your favor of the 18th, making inquiry of the results of my experience in use of your "Young America Corn & Cob Mill," has been received. I take pleasure in stating that the experiment has been entirely satisfactory, and I regard it as a valuable adjunct in providing for winter-feeding stock, and sold at a very reasonable price, for its merits.

Respectfully yours,

JOHN S. BARBOUR.

RICHMOND, VA., NOVEMBER 1st, 1876.

E. Whitman & Sons.

Gentlemen:—Yours of 30th received. We have sold quite a number of your "Young America Corn & Cob Mills" during the past year, and they have all given entire satisfaction. We believe it is the best mill of the kind in the market.

Respectfully yours,

H. M. SMITH & CO.

FREDERICK CITY, MD., NOVEMBER 20th, 1876.

E. Whitman & Sons.

Gentlemen:—In answer to your inquiry concerning the merits of the "Young America Corn & Cob mill," would say that in our experience we believe it is the best mill for farmers and stock feeders use, that is made. It is cheap, simple, durable, and does good and satisfactory work when the grain is in proper condition for grinding. It will crush the corn and cobs fine enough for feed in one operation, and also grind shell corn, rye, oats, barley, and screenings as good as any grist mill. It is the most economical machine a farmer can buy.

Yours, Respectfully,

STEWART & PRICE.

HILLSBORO, LOUDOUN CO., VA., NOVEMBER 20th, 1876.

Messrs. E. Whitman & Sons.

Gentlemen:—I used one of the "Young America Corn & Cob Mills" last winter, and found it in every respect what it was recommended. Every farmer should have one, and I feel satisfied that the use of the mill one season would pay for it, not only in feeding stock, but in grinding corn for meal, which it will do admirably, also other small grains.

Very respectfully,

T. E. HOUGH.

ELKIN, N. C. NOVEMBER 22nd, 1876.

E. Whitman & Sons.

Gentlemen:—The "Young America Corn & Cob Mill" bought of you a few months ago, for one of our firm, gives entire satisfaction. Does all you recommend, and more; find it also grinds rye well.

Please send us another for a customer, to Windsor, N. C., via York River Line, as soon as convenient. So soon as our great National affairs are favorably settled, and money matters become easier, we will want several more of these mills.

Yours truly,

R. R. GWYN & CO.

CULPEPER CO., VA., NOVEMBER 19th, 1876.

Messrs. E. Whitman & Sons.

Gents.—Your postal received to-day. In regard to "Young America Corn & Cob Mill," allow me to say, it will make excellent meal, when the corn is dry. It has worked very satisfactory to me. As to crushing corn and grinding cob meal, that is, corn and cob together; it seems to me it accomplishes all that can be reasonably expected or desired, and has particularly excited the hostility of the millers around me, which may be considered a very fair proof of its merits. I have had 44 bushels cob meal ground in one short winter day by a Negro boy 10 or 12 years old, with one horse.

Yours, &c.,

WALTER C. PRESTON.

HIRNDON, GEORGIA, NOVEMBER 21st, 1876.

Messrs. E. Whitman & Sons.

Gents.—With the aid of one mule the "Young America Corn & Cob Mill" makes excellent hominy for the table, and turns out splendid feed for horses, hogs and cows. In a few hours I can grind enough to last my stock a week. I am well pleased with it and would cheerfully recommend their more general use.

Very respectfully,

A. P. WIGGINS.

ILCHESTER, MD., NOVEMBER 4th, 1876.

Messrs. E. Whitman & Sons.

Gents.—The "Young America Corn & Cob Mill" will grind from six to ten bushels an hour according to the power you have and the fineness of the corn. It will save a great deal of corn in feeding horses; and as for cattle, it has no equal. Cattle improve much faster, and never get stalled if fed with a little care.

Respectfully,

G. HOWARD WHITE.

HANOVER, January 6, 1876.

GENTS.—In reply to yours of the 5th instant, I would say that I have ground eighteen bushels of corn and cob with the Young America Mill in one hour, and can do it with ease, providing the corn is dry, and make it fine enough for any feeding purposes. The majority of our farmers grind shelled corn with the mill, and also grind rye for horse chop, and corn for meal, but what quantity per hour I cannot say. Yours, truly,

WM. J. YOUNG.

CHESAPEAKE CHEMICAL WORKS.

OIL VITRIOL.

SALT CAKE, (Sulph. Soda),

NITRATE SODA,

KAINITE, (Sulph. Potash),

Chlorcalium, (Mur. Potash.)

MANUFACTURERS AND MANIPULATORS OF PHOSPHATES ON
ORDERS AND FORMULAS FURNISHED BY
OUR FRIENDS.

To those who want to manipulate their own Phosphates, we offer
a full line of PURE MATERIALS.

Having completed extensive improvements and additions to our
Works, giving us increased facilities, we are now prepared to execute
orders with greater promptness, and deliver goods in much better me-
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*We offer to the Trade the following Goods, all of which are ab-
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DISSOLVED GROUND BONE,

Containing 3 per cent. of Ammonia.

Dissolved South American Bone Ash.

DISSOLVED SOUTH CAROLINA PHOSPHATE.

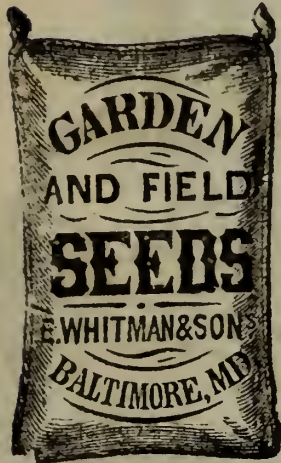
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We have on hand and are now receiving an extensive stock of Garden Seeds of every description, which we warrant fresh and true to name, and which we have carefully selected from the stock of the most reliable growers of this country and Europe, embracing all of the standard varieties and all of the novelties of assured merit.

Our prices will be as low as those of any other reliable seed house in the country, and from the pains that we take in procuring our seeds and caring for them, they MUST give as good satisfaction as those from any other source.

Garden Seeds by Mail.

We will, upon application, forward our price list to any part of the country, and upon receipt of the prices therein specified, will send seed by mail (at our expense for postage) to any part of the United States. *This, however, does not apply to Peas, Beans, or Field Seeds, upon which postage will be charged.*

FIELD SEEDS.

We have always on hand a large supply of every description of Field Seeds, such as

Clover, Timothy, Orchard Grass, Herds Grass, Kentucky Blue Grass, Perennial Rye Grass, Lucerne, Alsike Clover, White Clover, Hungarian Grass, Millet, Wheat, Corn, Rye, Barley, Oats, &c., all of which we can furnish at the lowest market prices.

High Grade Grass Seeds a Specialty.

Owing to the fluctuations of market prices of Field Seeds, and the small margin for profit, no printed price list can be issued, but our prices will always be as low as the market affords. For prices of Garden Seeds, send for a price list.

E. WHITMAN & SONS,

145 and 147 West Pratt St.,

Opposite Maltby House,

BALTIMORE, MD.

A detailed black and white engraving of a horse-drawn wagon. The wagon has a boxy body with decorative panels and the word 'WAGON' inscribed on the side. It features large spoked wheels and a complex harness system for pulling.

				<i>Capacity.</i>
3 inch	Thimble Skein, Light	2 Horse.....	\$ 90	00—2500 lbs.
3 1/2	"	" Medium 2 Horse.....	95	00—3000 lbs.
3 3/4	"	" Heavy 2 Horse.....	100	00—4000 lbs.
3 3/4	"	" 3 or 4 Horse.....	105	00—5000 lbs.
4	"	" for 4 Horses, with stiff tongue,		
	pole and stretcher chains.....		115	00—6000 lbs.

IRON AXLE WAGONS.

1	inch	Iron Axle, Light 2 Horse.....	\$100 00—	2300 lbs.
1	"	Medium 2 Horse.....	105 00—	2800 lbs.
1	"	Heavy 2 Horse.....	110 00—	3500 lbs.
2	"	for 4 Horses, with stiff tongue, pole and stretcher chains,.....	120 00—	5000 lbs.
2½	"	4 " " " " " " " " " "	150 00—	7000 lbs.

Spring Seat, (with 2 steel springs) \$6. Patent Brakes, \$4. Lock Chain, \$1.

No. 2, with half springs, 1 spring seat, shafts.....	\$100 00
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Jersey Buggy " " " "	160 00

E. WHITMAN & SONS,

Nos. 145 & 147 W. Pratt Street, Baltimore.

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IMPORTERS OF
SOUTH AMERICAN PRODUCE, HIDES, HAIR,
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Especial attention given to the importation of **BONES** and **BONE ASH** for Carbon
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CELEBRATED

TOBACCO FERTILIZER

UNRIVALLED FOR THE TOBACCO CROP.

For Sale by Agents and Dealers throughout the Country.

PRICE \$50 PER TON AT BALTIMORE.

Dissolved Bone Super - Phosphate

SUPPLIED TO MANUFACTURERS AND DEALERS AT
LOW FIGURES.

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A large and varied assortment of
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For Sale at Low Rates.

PEACH TREES A SPECIALTY.
Catalogues Free!

Will exchange for good Live Stock or other good property

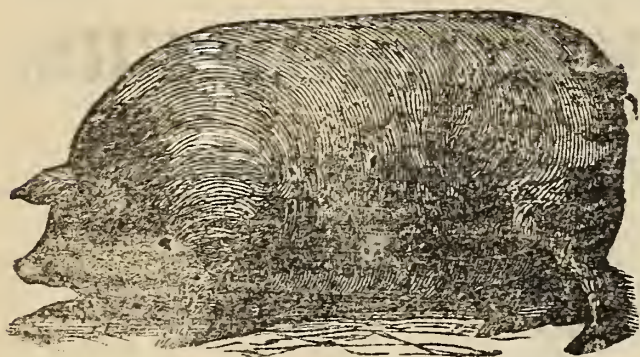
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of the **CLAWSON & FULTZ** varieties; hardy, make large yields, ripen early, worthy the attention of every Wheat Grower. Send stamp for sample and description.

B. L. WOOD,
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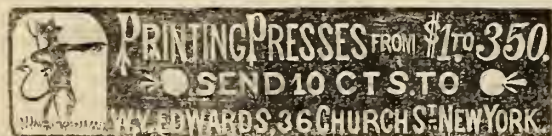
Premium Chester White.
BERKSHIRE & ESSEX PIGS.
FANCY POULTRY,
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WEST CHESTER, CHESTER CO., PENN.

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Remedies, with full directions, sent to any part of the world.

Send for pamphlets and particulars. Address
H. T. BOND, M. D., Penna. Cancer Institute,
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Also, a Complete "Kit of Tools."

Just what is wanted. Send three-cent stamp for circular to **EMPIRE PORTABLE FORGE CO.,** Troy, N. Y.

MUNSON HILL NURSERIES.

A large stock of

Fruit and Ornamental Trees

For sale, including, among others,

75,000 Peach Trees,	-	-	-	\$ 80.00 per 1000
150,000 Apple "	-	-	-	100.00 "
150,000 Osage Orange Trees,	-	-	-	3.00 "
25,000 Maple Trees,	-	-	-	250.00 "
100,000 Concord Grape,	-	-	-	25.00 "

And a large assortment of **PEAR, CHERRY, QUINCE** and **PLUM TREES**; variety of **EVER-GREENS, SMALL FRUITS, VINES, &c.**, at reasonable prices.

Send for Catalogue. Address,

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FALLS CHURCH, Fairfax county, Va.,

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Rich Jewelry, Fine Watches and Sterling
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HOME GROWN SEEDS OUR NEW CATALOGUE, pages, containing the greatest variety of Garden and Flower Seeds, and the best strains of home grown seeds for Market Gardeners, Family Gardens, Amateurs and Florists, sent free to all who apply
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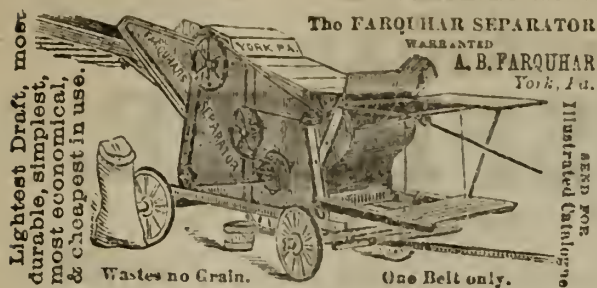
The very best dog a Farmer or Stock Breeder can have. The most intelligent and useful dog known. Send stamp for prices and full information, to

D. Z. EVANS, JR.

32 N. 5th, St., Philadelphia, Pa.

ALSO

Cattle, Sheep, Swine, Poultry, Dogs, Rabbits &c.



PENNSYLVANIA Agricultural Works YORK, PA.

A. B. Farquhar, Manager & Prop'r.

The Farquhar Separator,

Warranted the best in use. Send for Catalogue.

Horse Powers and Thrashers of all kinds a specialty.

The Pennsylvania Agricultural Works is one of the most extensive establishments of its kind in the United States. It is furnished with improved Machinery, Foundry, Forging Rooms, Planing and Sawing Mills, Lumber Yard, &c., complete within itself. We are situated among the great Iron, Coal and Lumber fields, which form the basis of all manufacturing; and I would respectfully call the attention of the public to these advantages, confident of meriting an extended patronage.

The following are among my specialties:

PLOWS.

Polished, Hardened Steel and Cast Iron. Farquhar's Cast Steel Model Plow, one and two horse, warranted in any soil, and under all circumstances, *second to none*.—American Clipper, Full Steel, one, two and three horse. Atwood and Ohio Cast Plows, two and three horse. Subsoil Plows, Steel soled, two and three horse. Hillside or Swivel Plows, &c., &c.

Shovel Plows, Cultivators, Sulkie Plows

Made of the best White Oak, or Refined Iron Beams, with hardened Steel Shovels, Plain or Reversible.

KEYSTONE CORN PLANTER, with PHOSPHATE ATTACHMENT, works perfectly with any size Corn and any pulverized Fertilizer.

AGRICULTURAL STEELS.

Cultivator Teeth, hardened steel, Shovel Plow Blades, Cotton Scrapers, Improved Dickson Cotton Sweeps, &c., all of best Steel, made expressly for my use.

Pelton Triple Geared Horse Powers.

This celebrated Horse Power is fast taking precedence wherever introduced; it is more economical, durable and lighter of draft than any other. I make all sizes from two to ten horse.

THRESHING MACHINES.

Of all sizes, for both Gear and Belt.

RAILWAY HORSE POWERS with SEPARATORS.

FARQUHAR'S SEPARATOR.

From two to ten Horse Power; simple, strong and durable. Turbine Water Wheels, Mill Gearing, Plow Iron and Castings, &c.

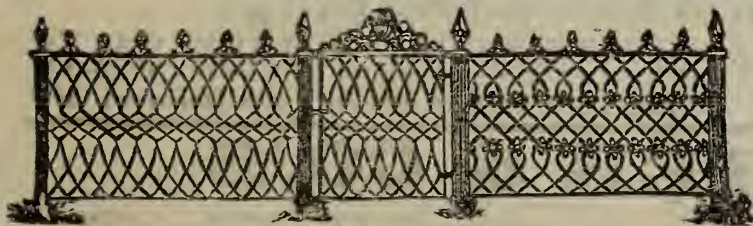
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Having improved Blanchard machinery for the manufacture of Plow Handles upon an extensive scale, I can supply first quality Handles, side bent to order for any pattern of plow.

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Feb-17

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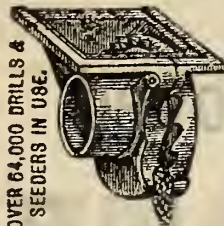
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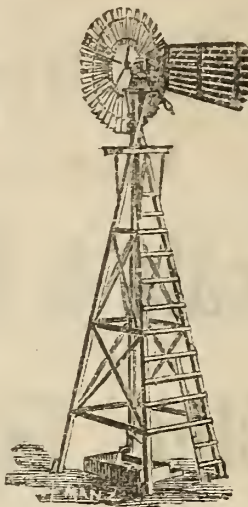
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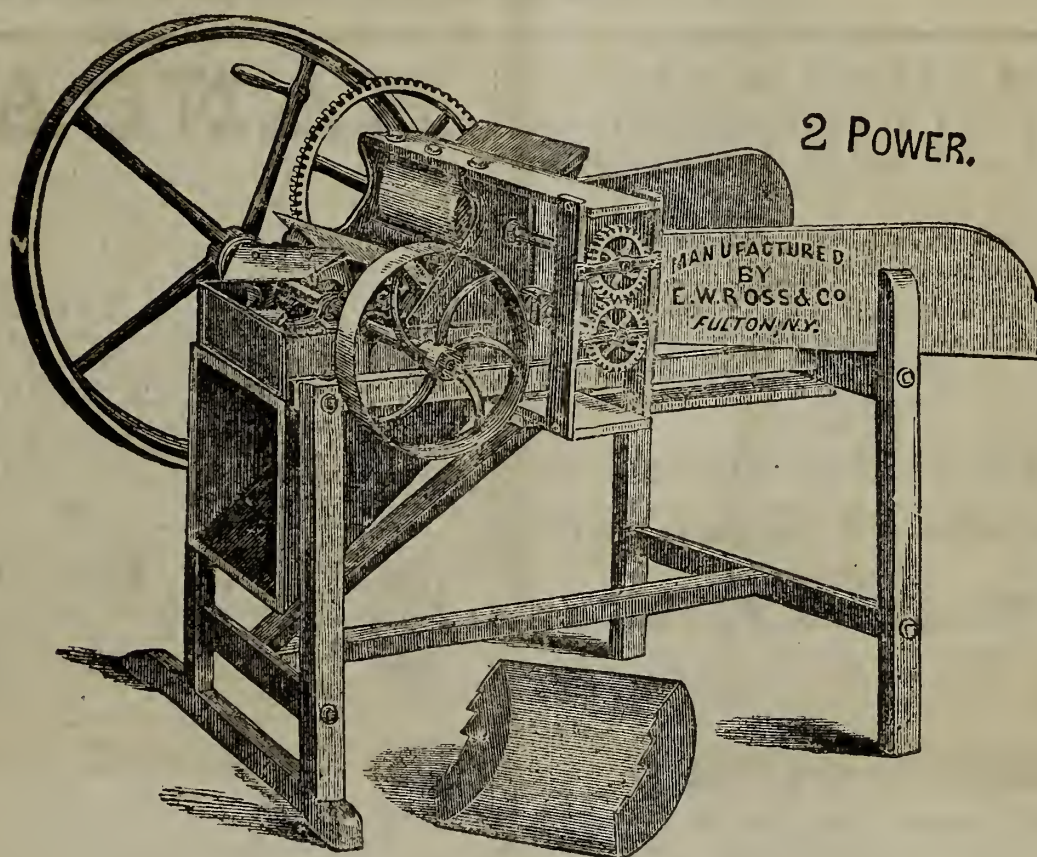
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W. E. McNERY, Master.

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